STATE OF NEW HAMPSHIRE INTER-DEPARTMENT COMMUNICATION

DATE:

December 23, 2020

FROM:

Andrew O'Sullivan

AT (OFFICE):

Department of Transportation

SUBJECT

Wetlands Program Manager
Dredge & Fill Application

Transportati

Jefferson, 43078

Bureau of Environment

TO

Karl Benedict, Public Works Permitting Officer

New Hampshire Wetlands Bureau 29 Hazen Drive, P.O. Box 95 Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT Bureau of Bridge Maintenance for the subject major impact project. This project is classified as major Env-Wt 903.01(g)- repair and rehabilitation of an existing legal Tier 3 structure and Env-Wt 523.04(c)(1)- new non-tidal dredging. The project is located along NH Route 115 in the Town of Jefferson, NH. The proposed work consists of rehabilitating an existing 11'-5" wide by 7'-3" high multi-plate steel pipe arch by installing a 6" concrete invert, replacing the Mortar Rubble Masonry (MRM) headwalls and wingwalls with reinforced concrete, dredging material built up within the stream channel, and installing a downstream grade control fish weir.

This project was reviewed at the Natural Resource Agency Coordination Meeting on July 15, 2020. A copy of the minutes has been included with this application package. A copy of this application and plans can be accessed on the Departments website via the following link: http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm.

NHDOT anticipates and request that this project be reviewed and permitted by the Army Corp of Engineers through the State Programmatic General Permit process. A copy of the application has been sent to the Army Corp of Engineers.

Mitigation was determined to not be required as the proposed work was determined to be self-mitigating.

The lead people to contact for this project are Tim Boodey, Bureau of Bridge Maintenance (271-3668 or Timothy.Boodey@dot.nh.gov) or Sarah Large, Wetlands Program Analyst, Bureau of Environment (271-3226 or Sarah.Large@dot.nh.gov).

A payment voucher has been processed for this application (Voucher #630307) in the amount of \$475.60.

If and when this application meets with the approval of the Bureau, please send the permit directly to Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment.

AMO:sel

CC:

BOE Original

Town of Jefferson (4 copies via certified mail)

David Trubey, NH Division of Historic Resources (Cultural Review Within) Carol Henderson, NH Fish & Game (via electronic notification)

Maria Tur, US Fish & Wildlife (via electronic notification)

Beth Alafat & Jeanie Brochi, US Environmental Protection Agency (via electronic notification)

Michael Hicks & Rick Kristoff, US Army Corp of Engineers (via electronic notification)

Kevin Nyhan, BOE (via electronic notification)



STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION



File No.:

Water Division/Land Resources Management Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/Env-Wt 100-900

APPLICANT'S NAME: NH Department of Transportation

Administrative	Administrative Use	Administrative Use	Check	No.:
Use Only	Only	Only	Amour	nt:
			Initials	
adherence to the requirements	to requirements in Rules Env-Versions would not be in the best inter- for existing dwellings over water m.	ests of the public or the env	rironment. A	A person may also
	OCESSING OF RELATED SHORELAND OF RELATED SHORE S		PPLICATION	S (Env-Wt 313.05)
	e for the optional concurrent proplications (Env-Wt 313.05(d))? be processed concurrently).	_	proceed	Yes No
related shoreland/wetlands pe	ing this section, the applicant is ermit applications and understa process the applications togeth	ands that concurrently filing	_	
, , ,	of the shorter time frame, if app rogram under the 2 statutes an			Initials:
	cant that any request for additi es shall affect the review timef			Initials:
SECTION 2 - REQUIRED PLANN	NING FOR ALL PROJECTS (Env-V	Vt 306.05)		
	t Planning Tool (WPPT) or any curce areas (PRA), protected spe			
•	entist must delineate and classi less the exceptions listed in Env	*	•	

Step 2: Determine whether the subject property is or contains a PRA by answering the following quest 306.05(a)(2)):	ions (Env-Wt
1. Does the property contain any documented occurrences of protected species or habitat for such species? Please use the Natural Heritage Bureau (NHB) DataCheck Tool to make this determination.	☐ Yes ⊠ No
2. Is the property a bog? Please use the WPPT "Peatland" layer (under the PRA module) for general location of bogs or any other database or source.	Yes No
3. Is the property a floodplain wetland contiguous to a tier 3 or higher watercourse? Please use the WPPT "Floodplain Wetlands Adjacent to Tier 3 Streams" layer (under PRA module) or any other database or source.	Yes No
4. Is the property a designated prime wetland or a duly-established 100-foot buffer? Please use the WPPT "Prime Wetlands" layers (under PRA module) or any other database or source.	Yes No
5. Is the property a sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? Please use the WPPT "Coastal" layers module and PRA module or any other database or source.	☐ Yes ⊠ No
Step 3: For projects that are subject to Env-Wt 600, please attach the Coastal Functional Assessment (and Vulnerability Assessment (Env-Wt 603.05) and conduct the data screening required by Env-Wt 603.05).	,
Step 4: Determine whether the following apply to the subject property (Env-Wt 306.05(a)(4); RSA 482	-A:3, I(d)(2)):
1. Is the property within a Local River Management Advisory Committee (LAC) jurisdiction?	
If yes, please provide the following information: The project is within ¼ mile of: A copy of the application was sent to the LAC on Month: Day: Year:	Yes No
N/A (Env-Wt 311.01(e))	
2. Is the property within or contains any areas that are subject to time of year restrictions under Env-Wt 307?	⊠ Yes ☐ No
Step 5: For stream crossing projects: what is the size of the watershed (Env-Wt 306.05(a)(5))? 888 acre	es
Step 6: For dredge projects: is the subject property contaminated (Env-Wt 306.05(a)(6))? Yes N/A	No
Step 7: Does the project have the potential to impact any of the following (Env-Wt 306.05(a)(7)): N/A	
1. Impaired waters?	Yes 🛛 No
2. Class A waters?	Yes No
3. Outstanding resource waters?	Yes No
SECTION 3 - PROJECT DESCRIPTION (Env-Wt 311.04(i))	72
Provide a brief description of the project and the purpose of the project, outlining the scope of work to and whether impacts are temporary or permanent. DO NOT reply "See attached" in the space provide	·
Work will include removal of excess material within the stream both upstream and downstream of the replacement of the Mortar Rubble Masonry (MRM) headwalls and wingwalls with reinforced concrete 6" invert within the culvert and install a low-flow weir at the outlet. Permanent impacts are associated installation of fish weir, installation of cut off walls at inlet and outlet and dredging of material to restocapacity. Temporary impacts are for access during construction and installation of erosion control me	, installation of a d with the ore hydraulic

SECTION 4 - PROJECT LOCATION Separate wetland permit applications m	ust be submitted fo	or each munic	cipality with	nin which we	tland	I impacts occur.
ADDRESS: NH Route 115		TOWN/CI	ΓΥ: Jefferso	n		
TAX MAP/BLOCK/LOT/UNIT: NHDOT RO	W	1.				
UNITED STATES GEOLOGICAL SURVEY (L	JSGS) TOPO MAP W	/ATERBODY N	IAME: Red	Brook		
LATITUDE (D.dddddd): 44.366056° North	(Optional)	LONGITUDE	(D.ddddd):	-71.457353°	Wes	t (Optional)
SECTION 5 - APPLICANT (DESIRED PERM If the applicant is a trust or a company, a name.		•			n as	the applicant's
NAME: NH Dept. of Transportation						
MAILING ADDRESS: 7 Hazen Drive; PO B	ox 483			40-		
TOWN/CITY: Concord				STATE: NH		ZIP CODE: 03302
EMAIL ADDRESS: timothy.m.boodey@de	ot.nh.gov		FAX: 271-	3914	PHC	NE: 271-3667
ELECTRONIC COMMUNICATION: By initi to this application electronically.	aling here: <u>TMB</u> , I h	nereby author	ize NHDES	to communi	cate a	all matters relative
SECTION 6 - AUTHORIZED AGENT INFO	RMATION (Env-Wt	311.04(c))				
LAST NAME, FIRST NAME, M.I.:						
COMPANY NAME:		MAILING	ADDRESS:			
TOWN/CITY:		Ĭî		STATE:		ZIP CODE:
EMAIL ADDRESS:	FAX:		PI	HONE:		
ELECTRONIC COMMUNICATION: By initito this application electronically.	aling here, I	hereby autho	rize NHDES	to commun	icate	all matters relative
SECTION 7 - PROPERTY OWNER INFORM If the owner is a trust or a company, the Same as applicant						
NAME: NH Dept. of Transportation						
MAILING ADDRESS: 7 Hazen Drive; PO B	ox 483					
TOWN/CITY: Concord				STATE: NH		ZIP CODE: 03302
EMAIL ADDRESS: andrew.O'Sullivan@do	ot.nh.gov		FAX: 271-	7199	РНО	NE: 271-3226
ELECTRONIC COMMUNICATION: By initi to this application electronically.	aling here <u>AMO,</u> I h	ereby author	ize NHDES	to communio	cate a	all matters relative

SECTION 8 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3)). Describe how the resource-specific criteria have been met (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters). Env-Wt400: Wetlands delineation was done by Sarah Large (NHDOT) on October 28, 2019 and determined to have impacts to Riverine Upper Perennial Unconsolidated Bottom Cobble-gravel/sand (R3UB12). Env-Wt500: Work will include non-tidal dredging Env-Wt 523 to restore the hydraulic capacity and maintain existing infrastucture. Env-Wt600: The project is not located in a coastal or tidal area Env-Wt700: No prime wetlands are within the project area Env-Wt900: The proposed project meets all the criteria specified under 904.09(c): no history of flooding, will restore the hydraulic capacity, maintains aquatic organism passage and stream connectivity as it exists today and will not increase the risk or frequency of flooding. **SECTION 9 - AVOIDANCE AND MINIMIZATION** Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)). If all impacts cannot be avoided, a functional assessment is required for minor and major projects (Env-Wt 311.03(b)(10)). Any project with unavoidable jurisdictional impacts must then be minimized as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization. Please refer to the application checklist to ensure that you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). **SECTION 10 - MITIGATION REQUIREMENT (Env-Wt 311.02)** If unavoidable jurisdictional impacts require mitigation, a mitigation pre-application meeting must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application. Mitigation Pre-Application Meeting Date: Month: 07 Day: 15 Year: 2020 (N/A - Mitigation is not required) SECTION 11 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c). Have you submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent impacts that will remain after avoidance and minimization demonstration?

lrm@des.nh.gov or (603) 271-2147
NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095
www.des.nh.gov

X Yes No

(N/A - Mitigation is not required)

SECTION 12 - IMPACT AREA (Env-Wt 311.04(g))

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without required permitting).

For intermittent streams, the linear footage of impact is measured along the thread of the channel.

For perennial streams/rivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA	PERMANENT		TEMPORARY	
	SF / LF		SF / LF	
Forested Wetland		ATF		ATF
Scrub-shrub Wetland		ATF		ATF
Emergent Wetland	31/12	ATF	225/22	ATF
Wet Meadow		ATF		ATF
Intermittent Stream		ATF	1	ATF
Perennial Stream or River	272 / 39	ATF	184 / 22	ATF
Lake / Pond	/	ATF	1	ATF
Bank - Intermittent Stream	1	ATF	1	ATF
Bank - Perennial Stream / River	376 / 64	ATF	101 / 22	ATF
Bank/shoreline - Lake / Pond	1	ATF	1	ATF
Tidal Waters	/	ATF	/	ATF
Tidal Marsh		ATF		ATF
Sand Dune		ATF		ATF
Designated Prime Wetland		ATF		ATF
Duly-established 100-foot Prime Wetland Buffer		ATF		ATF
Undeveloped Tidal Buffer Zone (TBZ)	PH-11	ATF		ATF
Previously-developed TBZ		ATF		ATF
Docking - Lake / Pond		ATF		ATF
Docking – River		ATF		ATF
Docking - Tidal Water	_111	ATF		ATF
Vernal Pool		ATF		ATF
TOTAL	679 / 115		510 / 66	
SECTION 13 - APPLICATION FEE (RSA 482-A	3, 1)			
MINIMUM IMPACT FEE: Flat fee of \$400				
NON-ENFORCEMENT RELATED, PUBLICL IMPACT CLASSIFICATION: Flat fee of \$40	· ·			GARDLESS OF
MINOR OR MAJOR IMPACT FEE: Calculate			· · · · · · · · · · · · · · · · · · ·	
Permanent and tem	porary (non-docking): 1,189 SF	× \$0.40 =	\$ 475.60
Season	nal docking structure	e: SF	× \$2.00 =	\$
Permane	ent docking structure	e: SF	× \$4.00 =	: \$
Projects _I	proposing shoreline	structures (inclu	ding docks) add \$400 =	: \$
			Total =	\$ 475.60
The application fee for minor or major impa	act is the above calcu	lated total or \$40	0, whichever is greater =	\$ 475.60

SECTION 14 - PROJE	ECT CLASSIFICATION (Env-Wt 3 classification.	306.05)		
Minimum Impac	t Project Minor	r Project		Major Project
SECTION 15 - ALL A	PPLICABLE CONDITIONS IN Env	v-Wt 307	7 HAVE BEEN MET (En	v-Wt 311.04(j); Env-Wt 313.01(a)(2)).
	applicable to your project belong appropriately meet applicab			an design and access, construction
Env-Wt 307.02	US Army Corps of Engineers (USACE) Conditions		Env-Wt 307.11	Filling Activity Conditions
Env-Wt 307.03	Protection of Water Quality Required		⊠Env-Wt 307.12	Restoring Temporary Impacts: Site Stabilization
Env-Wt 307.04	Protection of Fisheries and Breeding Areas Required		Env-Wt 307.13	Property Line Setbacks
Env-Wt 307.05	Protection Against Invasive S Required	pecies	Env-Wt 307.14	Rock Removal
⊠Env-Wt 307.06	Protection of Rare, Threatene Endangered Species and Criti Habitat		⊠Env-Wt 307.15	Use of Heavy Equipment in Wetlands
Env-Wt 307.07	Consistency Required with Shoreland Water Quality Pro- Act	tection	⊠Env-Wt 307.16	Adherence to Approved Plans Required
Env-Wt 307.08	Protection of Designated Prin Wetlands and Duly-Establishe Foot Buffers		Env-Wt 307.17	Unpermitted Activities
Env-Wt 307.09	Shoreline Structures		Env-Wt 307.18	Reports
Env-Wt 307.10	Dredging Activity Conditions			
required in Env-Wt The project will mee DOT right-of-way. E throughout constru 4 months to comple The order of work w construction. Red Brook is a predi any documented oc stream is proposed entering the culvert water to back-up at continuity during all of the crossing. A c	and the standard permit condition is the standard permit condition is to not contribute to see the and is proposed to be done will be installation of concrete in the coldwater stream, however curance of coldwater fish species will be reduced, restoring the the outlet which will further be flow periods. Material to be dean water bypass pipe will be inwater into the bypass pipe. Fis	e installed during to havert, he er accories within ability to streams enefit fished energed installed	ired by Env-Wt 307. And prior to earth disturtion into Red Brook. We he winter (pending pending to NHF&G and the management of pass through the stress of pass through the stress of the pending to the stress of	Il work will be conducted within the rbing activities and be maintained Work is proposed to take approximatly emit approval) and into the spring. Ediment removal and fish weir seir Fish Survey Map they do not have dging of material deposited in the aucture because the water velocities the installation of a fish weir will allow bugh the structure by establishing flow occumulated at both the inlet and outletting construction, as well as a sandbag throughout construction through use

SECTION 16	- REQUIRED CERTIFICATIONS (Env-Wt	311.11)		
Initial each	box below to certify:			
Initials: TMB	To the best of the signer's knowledge and	belief, all required	d notifications have been provided.	
Initials: TMB	The information submitted on or with the signer's knowledge and belief.	application is true	e, complete, and not misleading to th	e best of the
Initials: TMB	 Deny the application. Revoke any approval that is greater in the signer is a certified wethors are considered in the signer in the signer is subject to the penaltic currently RSA 641. The signature shall constitute authors are considered in the signature shall authorize only the signature shall a signature shall a signature shall a signature shall a signature	ranted based on the and scientist, licent efer the matter to lies specified in New orization for the matter to be proposed proje the Department to	sed surveyor, or professional engined the joint board of licensure and certiful w Hampshire law for falsification in of unicipal conservation commission and ct, except for minimum impact trail prints inspect the site pursuant to RSA 482-A	er licensed to fication fficial matters, d the rojects, where A:6, II.
Initials: TMB	If the applicant is not the owner of the pro signer that he or she is aware of the applic			rtification by the
SECTION 17	- REQUIRED SIGNATURE (Env-Wt 311.0	4(d); Env-Wt 311	.11)	
SIGNATURE	OWNER):	PRINT NAME LEGI PRINT NAME LEGI		DATE: 12/18/2020
SIGNATURE (APPLICANT IF DIFFERENT FROM OWNER):	PRINT NAME LEGI	BLY:	DATE:
SIGNATURE	AGENT, IF APPLICABLE):	PRINT NAME LEGI	BLY:	DATE:
	B - TOWN / CITY CLERK SIGNATURE (Env			AND THE
As required	by RSA 482-A:3, I(a),(1), I hereby certify four USGS location maps with the town/	that the applicancity indicated belo	t has filed four application forms, forms.	our detailed
	Y CLERK SIGNATURE:		PRINT NAME LEGIBLY:	
TOWN/CIT	Y:		DATE:	

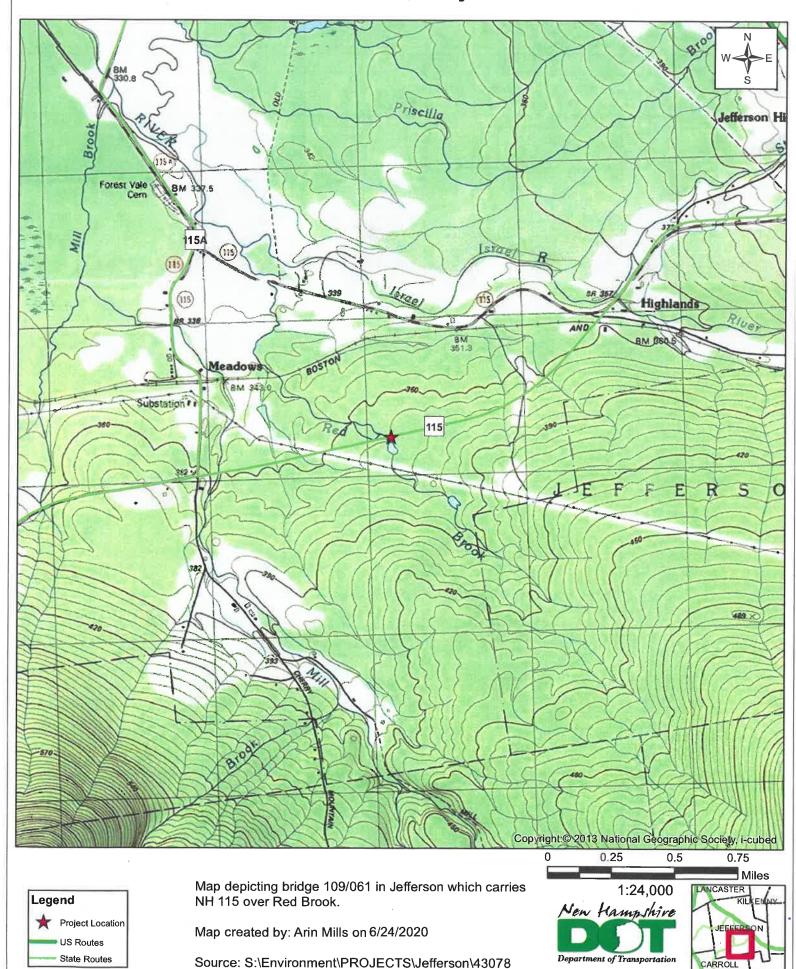
DIRECTIONS FOR TOWN/CITY CLERK: Please refer to env-wt 311.05(a)(14) and RSA 482-A13, I(a)
Per RSA 482-A:3, I(a)(1) 05 it pertains to state agencies.

- 1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
- 2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
- 3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board. And
- 4. Retain one copy of the application form and one complete set of attachments and make them reasonably

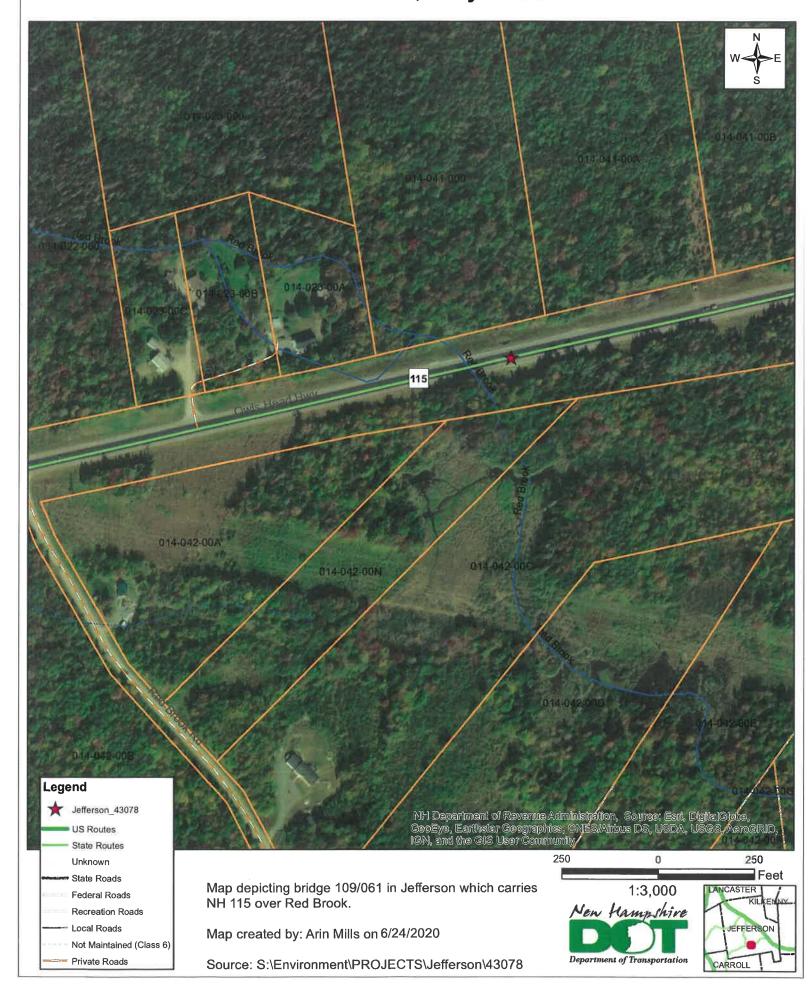
DIRECTIONS FOR APPLICANT: the town in accordance with the rule and regulations the single, original permit application form bearing the signature of the Town/City Clerk, additional materials,

Submit the single, original permit application form bearing the signature of the Town/City Clerk, auditional mater and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page.

Jefferson, Project #43078



Jefferson, Project #43078





STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS



Water Division/Land Resources Management Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT LAST NAME, FIRST NAME, M.I.: NH Department of Transportation

Attachment A can be used to satisfy some of the additional requirements for minor and major projects regarding avoidance and minimization, as well as functional assessment.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

NO WORK: NO WORK WOULD LEAD TO THE FAILURE OF THE CROSSING, MAKING PASSAGE OF RED BROOK ON NH115 UNUSABLE FOR THE TRAVELING PUBLIC. WITHOUT DREDING THE BUILT UP MATERIAL THE EXISTING CONDITION WOULD LEAD TO FURTHER BUILD-UP OVER TIME AND EVENTUALY COULD CONTRIBUTE TO THE CAUSE OF THE BROOK OVERTOPPING THE ROAD AND FAILURE OF THE STRUCTURE AND ROADWAY. FAILURE TO REPAIR THE INVERT AND HEADWALLS WOULD LEAD TO EVENTUAL DETERIORATION, AND FAILURE OF THE STRUCTURE.

REPLACEMENT OF CROSSING: IT WAS DETERMINED THE EXISTING STRUCTURE COULD BE REPAIRED TO EXTEND THE USE AND LIFE CYCLE OF THE EXISTING CROSSING, AND THAT REPLACEMENT WAS NOT NECESSARY. THIS ALTERNATIVE WOULD BE BOTH MORE COSTLY AND LIKELY IMPACT THE SURROUNDING DELINEATED WETLANDS TO A GREATER EXTENT.

REPAIR (PREFERED): IT WAS DETERMINED THE EXISTING CROSSING COULD BE REPAIRED WITH THE USE OF AN INVERT LINING AND HEADWALL/WING REPAIR TO EXTEND THE LIFE OF THE EXISTING STRUCTURE. DREDGING IS NECESSARY TO RESTORE THE HYDRAULIC CAPACITY OF THE EXISTING STRUCTURE, AND PROPERLY MAINTAIN CONNECTIVITY. THIS IS THE LEAST IMPACTING ALTERNATIVE, WHILE MAINTAINING THE EXISTING INFRASTRUCTURE. IMPACTS TO THE PEM1EX WETLAND ADJACENT TO THE BROOK AT THE INLET WERE AVOIDED. IMPACTS TO THE PEM/SS1E ADJACENT TO THE BROOK AT THE OUTLET WERE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE WHILE ALSO PROVIDING THE CREW SPACE TO ACCESS THE STRUCTURE TO COMPLETE THE WORK.

SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacea, shellfish and wildlife of significant value.
NO MARSHES WERE IDENTIFIED DURING THE FIELD INVESTIGATION AND DELINEATION. THEREFORE, NO IMPACTS TO MARSHES ARE PROPOSED, AND IMPACTS TO SURROUNDING WETLAND RESOURCES HAVE BEEN AVOIDED AND MINIMIZED IN THE PROPOSED DESIGN.
SECTION I.III – HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))
Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.
THE EXISTING BRIDGE PROVIDES HYDRAULIC CONNECTION BETWEEN THE UPSTREAM CHANNEL OF RED BROOK TO THE DOWNSTREAM CHANNEL. THE PROPOSED INSTALLATION OF THE 6" INVERT LINING WILL RAISE THE INVERT ELEVATION OF THE EXISTING STRUCTURE. TO MAINTAIN CONNECTIVITY A FISH WEIR WILL BE INSTALLED DOWNSTREAM OF THE OUTLET TO ALLOW THE WATER TO BACK-UP AT THE OUTLET AND THROUGH THE CROSSING AS TO NOT CREATE A PERCHED CONDITION DURING LOW FLOW EVENTS. NO IMPACTS TO SURROUNDING WETLAND RESOURCES ARE PROPOSED. THE ADJACENT WETLANDS TO THE STREAM WILL CONTINUE TO BE HYDROLOGICALLY CONNECTED TO THE BROOK AND PROVIDE FLOOD FLOW ATTENUATION TO THE BROOK DURING HIGH FLOW EVENTS.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

THE PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH ENV-WT 400, 500 AND 900. IMPACTS TO WETLAND RESOURCES HAVE BEEN MINIMIZED TO THE EXTENT PRACTICABLE. IMPACTS TO THE UPPER PERENNIAL RIVERINE SYSTEM ARE LIMITED TO AREAS NEEDED TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE STRUCTURE AND CONECTIVITY OF RED BROOK. THERE ARE NO KNOWN EXEMPLARY NATURAL COMMUNITIES, VERNAL POOLS OR PROTECTED SPECIES OR HABITAT KNOWN TO OCCUR IN THE PROJECT AREA. A REVIEW OF THE NATURAL HERITAGE BUREAU DATABASE SERACH (NHB20-1882) DETERMINED THERE ARE NO RECORDED OCCURANCES IN THE PROJECT AREA. REVIEW OF THE USFWS SPECIES LIST DETERMINED BOTH THE CANADA LYNX AND NORTHERN LONG-EARED BAT HAVE POTENTIAL TO OCCUR IN THE PROJECT AREA. FURTHER COODINATION DETERMINED ANY TAKE OF THE NORTHERN LONG-EARED BAT THAT MAY OCCUR IS NOT PROHIBITED UNDER THE 4(D) RULE OF THE ENDANGERED SPECIES ACT. BASED ON A SITE SURVEY OF THE PROJECT AREA NO HABITAT FOR THE CANADA LYNX IS WITHIN THE PROJECT AREA, AND THEREFORE HAS BEEN DETERMINED TO HAVE NO EFFECT ON THE SPECIES.

RED BROOK IS A PREDICTED COLD WATER FISHERY, ALTHOUGH NO DOCUMENTED RARE OR LISTED SPECIES OR REPRODUCTION AREAS ARE KNOWN TO OCCUR IN THE PROJECT AREA. NHDOT IS NOT ANTICIPATING A TIME OF YEAR RESTRICTION AS NO SPECIES UNDER THIS PROTECTION WILL BE IMPACTED. THE USE OF A CLEAN WATER BYPASS THROUGHOUT CONSTRUCTION WILL ALLOW FISH TO CONTINUE TO PASS WHILE WORK IS COMPLETED. A FISH WEIR WILL BE CONSTRUCTED TO MAINTAIN THE HYDRAULIC CONNECTION OF RED BROOK DURING LOW FLOW CONDITIONS BY BACKING UP WATER AT THE OUTLET. DREDGING ACTIVITIES WILL REDUCE VELOCITY OF WATER ENTERING THE STRUCTURE AND RESTORE HYDRAULIC CAPACITY OF THE CROSSING.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

TRAFFIC WILL CONTINUE TO FLOW AS USUAL ON NH 115 WHILE THE WORK IS COMPLETED, WITH ONLY MINOR TRAFFIC DELAYS DURING CONSTRUCTION DUE TO CONSTRUCTION EQUIPMENT ADJACENT TO THE ROADWAY. RED BROOK IS NOT DETERMINED TO BE A NAVIGABLE WATER BY THE US COAST GUARD, AND NO BRIDGE PERMIT IS REQUIRED TO COMPLETE THE WORK. NO OTHER PUBLIC RECREATION FACILITIES ARE KNOWN TO OCCUR AT THE PROJECT LOCATION, AND THEREFORE WILL NOT NEGATIVELY IMPACT THE PUBLIC'S USE OF RED BROOK.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6)) Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.
NO PERMANENT IMPACTS TO FLOODPLAIN WETLANDS ARE ANTICIPATED FOR CONSTRUCTION OF THE PROJECT. WORK IS HOWEVER PROPOSED TO OCCUR WITHIN A MAPPED FEMA 100-YEAR FLOODPLAIN. BASED ON HYDRAULIC CALCULATIONS THE STRUCTURE WILL PASS A 100-YEAR STORM EVENT BOTH BEFORE AND AFTER CONSTRUCTION. THERE IS NO EVIDENCE OF PAST FLOODING AT THIS LOCATION.
SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB –MARSH COMPLEXES
(Env-Wt 313.03(b)(7)) Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub — marsh complexes of high ecological integrity.
THE PROPOSED ACTION AVOIDS PERMANENT IMPACTS TO SURROUNDING WETLAND RESOURCES ADJACENT TO THE PROJECT AREA. IMPACTS TO THE RIVERINE SYSTEM ARE LIMTED TO AREAS NEEDED TO MAINTAIN THE EXISTING INFRASTRUCTURE IN WORKING ORDER FOR THE TRAVELING PUBLIC. IMPACTS TO RESOURCES HAVE BEEN LIMITED TO THE GREATEST EXTENT PRACTICABLE, AND NO PERMANENT IMPACTS TO SCRUB SHRUB OR FORESTED WETLANDS OF HIGH ECOLOGOGICAL INTEGRITY ARE PROPOSED.

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.
THE PROJECT WILL HAVE NO EFFECT ON WETLANDS THAT WOULD BE DETRIMENTAL TO ADJACENT DRINKING WATER SUPPLY OR GROUNDWATER AQUIFER LEVELS.
SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))
Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.
THE PROJECT, AS PROPOSED, LIMITS IMPACTS TO THE STREAM CHANNEL TO THE GREATEST EXTENT PRACTICABLE TO MAINTAIN USE OF THE EXISTING INFRASTRUCTURE. REMOVAL OF SEDIMENT WILL REDUCE VELOCITIES OF WATER ENTERING THE CROSSING AS WELL AS ELIMINATE ELEMENTS THAT DEBRIS CARRIED BY THE STREAM IN HIGH FLOW EVENTS MAY GET CAUGHT ON, CAUSING THE CROSSING TO BE BLOCKED AND POSSIBLY CONTRIBUTING TO THE BROOK OVERTOPPING THE ROAD. THE LOW FLOW WEIR WILL BACK-UP WATER AT THE OUTLET AND THROUGH THE CROSSING DURING LOW FLOW EVENTS. STORMWATER RUN-OFF WILL CONTINUE TO FLOW AS IT DOES TODAY FROM THE SURROUNDING LANDSCAPE.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: THE PROPOSED PROJECT WILL PERMANENTLY IMPACT RIVERINE WETLANDS (CHANNEL AND BANK). THE BROOK WILL CONTINUE TO SUPPORT ALL OF ITS EXISTING NATURAL STREAM PROCESSES POST CONSTRUCTION.TEMPORARY IMPACTS ARE PROPOSED TO THE PEM/SS1E ADJACENT TO THE BROOK AT THE OUTLET IN ORDER FOR CREWS TO ACCESS THE OUTLET TO COMPLETE THE WORK.INCLUDED IN THIS APPLICATION IS A FUNCTIONAL ASSESSMENT FOR THIS WETLAND.THE ASSESSMENT WAS COMPLETED USING THE US ACE HIGHWAY WORKBOOK DATED 1993 AND PER ENV-WT 311(A)(2)A
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: SARAH LARGE, ANDREW O'SULLIVAN, DEIDRA BENJAMIN
DATE OF ASSESSMENT: 06/16/20
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT:
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable:
Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

Wetland Function-Value Evaluation Form

approximately	:	TOTO T STITUTE T STATE		A dindrion I offit	
Total area of wetland 1000 ft A Human made? Is wetland part of a wildlift wetland transitions into	Is wetla	Is wetland part of a wildlife corridor? ** or.	or or	or a "habitat island"?	Wetland I.D. Wetland A - PEMEX Latitude 44:37% Longitude 31.46°W
Adjacent land use KOADLSAY		Distance to nearest roadway or other development	ıy or other	development 2014	Prepared by: A. Lary Date 6 16 20
Dominant wetland systems present TEM	X	Contiguous undeveloped buffer zone present	ouffer zon	e present $ {\cal N} $	Type NOME Area N/A
Is the wetland a separate hydraulic system?X) If n	If not, where does the wetland lie in the drainage basin? Middle of	e drainage	basin? Middle of Red Brook's	tion based
How many tributaries contribute to the wetland?		Wildlife & vegetation diversity/abundance (see attached list) WorkerShed	ındance (s		al wetland c
Function/Value	Suitability Y/N	Rationale (Reference #)*	Principal Function(s)	Principal Function(s)/Value(s) Con	Comments
Groundwater Recharge/Discharge	~	4,5,7,10	*	*likely meets waterqua	waterquality standards
Floodflow Alteration	\	4,5,9,10,11	DWC	Wetland is immediately ad	immediately adjacent to crossing's inlet
Fish and Shellfish Habitat	<	487.11.24	15	SMall tisk in Stream.	<i>}</i>
Sediment/Toxicant Retention	Y	1 10 10 1 P			
Nutrient Removal	~	3,9,10,11,12,14	O	·	
Production Export	~	一、「「」、「「」、「」、「」、「」、「」、「」、「」、「」、「」、「」、「」、「	to	Small / Large o	10 mals - grasses
Sediment/Shoreline Stabilization	>	*			
Wildlife Habitat	1	2,3,4,5,6,7,8,19	75	Small Halmal	\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.
** Recreation	>				
Educational/Scientific Value	~				
☆ Uniqueness/Heritage	X				
Visual Quality/Aesthetics	3	м			
ES Endangered Species Habitat	<				
Other					

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

	Refer to backup list of numbered considerations.	* Refer to ba				Notes:
						Other
					Z	ES Endangered Species Habitat
					2	Visual Quality/Aesthetics
					Z	Uniqueness/Heritage
				600	Z.	Educational/Scientific Value
					Z	** Recreation
		for small animals		2,3,4,5,6,7,8,19	~	₩ildlife Habitat
				3,4,6,7,9,12,13,15,	~	Sediment/Shoreline Stabilization
				1, 32, 14	Z	→ Production Export
				3,7,8,9,10,11,	~	Nutrient Removal
connective	connective	G	7	1,3,3,4,8,9,10,11,10,	~	Sediment/Toxicant Retention
	crossing is the primary barrier along Red Brook's reach	crossing is the primary		1,4*,7,14*,15,16,17	~	Fish and Shellfish Habitat
	loodstorage upstream with pand	Lots of floodstorage up	σ	4,5,6,9,10,13,16	~	Floodflow Alteration
	drinking water Standards	* likely meets drinking		4,5,7,11	7	Groundwater Recharge/Discharge
		(s)/Value(s)	Principal Function	Rationale (Reference #)*	Suitability Y/N	Function/Value
	Corps manual wetland delineation completed? Y	ance (see attached list)	abunda	Wildlife & vegetation diversity	1->	How many tributaries contribute to the wetland?
	Evaluatio	ainage basin? middle of	the dr	If not, where does the wetland lie in the drainage basin? Think of		Is the wetland a separate hydraulic system? NO
5 0 5	Type Jewypory Area I	Contiguous undeveloped buffer zone present Nes North of	ed buff		in	Dominant wetland systems present PEN/SSAE
10/1	Prepared by: S. Large Date 6/16/20	Distance to nearest roadway or other development 30 f	dway o		River	Adjacent land use Transportation
31.88	Wetland I.D. Wetland 6 - PEWSS1E Latitude 44, 21, 10 NLongitude 71.45 749°	or a "habitat island"? NO	Z	Is wetland part of a wildlife corridor?_	- 1	Total area of wetland 821 H Human made? NO



AVOIDANCE AND MINIMIZATION WRITTEN NARRATIVE



Water Division/Land Resources Management Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.04(j); Env-Wt 311.07; Env-Wt 313.01(a)(1),b; Env-Wt 313.01(c)

APPLICANT LAST NAME, FIRST NAME, M.I.: NH DEPARTMENT OF TRANSPORTATION

An applicant for a standard permit shall submit with the permit application a written narrative that explains how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable. This attachment can be used to guide this narrative (attach additional pages if needed). Alternatively, the applicant may attach a completed Avoidance and Minimization Checklist (NHDES-W-06-050) to the permit application.

SECTION 1 - WATER ACCESS STRUCTURES (Env-Wt 311.07(b)(1))

Is the primary purpose of the proposed project to construct a water access structure?

NO, REPAIR AND MAINTENACE TO EXISTING INFRASTRUCTURE

SECTION 2 - BUILDABLE LOT (Env-Wt 311.07(b)(1))

Does the proposed project require access through wetlands to reach a buildable lot or portion thereof?

NO, THIS BRIDGE MAINTENANCE PROJECT INCLUDES REPAIR AND MAINTENANACE TO EXISTING INFRASTRUCTURE

SECTION 3 - AVAILABLE PROPERTY (Env-Wt 311.07(b)(2))

For any project that proposes permanent impacts of more than one acre or that proposes permanent impacts to a PRA, or both, are any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, that could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs?

NOT APPLICABLE. PROPOSED PERMANENT IMPACTS ARE LESS THAN 1 ACRE. NO PRAS ARE WITHIN THE PROJECT AREA.

SECTION 4 - ALTERNATIVES (Env-Wt 311.07(b)(3))

Could alternative designs or techniques, such as different layouts, different construction sequencing, or alternative technologies be used to avoid impacts to jurisdictional areas or their functions and values on the subject property or on other property that is reasonably available to the applicant as described in the Wetlands Best Management Practice Techniques for Avoidance and Minimization?

NO, IMPACTS CANNOT BE AVOIDED TO JURISDICTIONAL AREAS AS THE PROJECT IS TO REPAIR AND MAINTAIN EXISTING INFRASTRUCTURE THAT CARRIES NH 115 OVER RED BROOK. THE PROPOSED WORK IS TO RESTORE HYDRAULIC CAPACITY OF THE STRUCTURE AND REPAIR/REPLACE THE EXISTING HEADWALLS AND WINGWALLS. IMPACTS TO RESOURCES HAVE BEEN LIMITED TO THE GREATEST EXTENT POSSIBLE TO COMPLET THE WORK, AND ADJACENT WETLAND RESOURCES HAVE BEEN AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE. ONLY MINIMAL TEMP IMPACTS TO PEM/SS1 ADJACENT TO OUTLET AS NEEDED TO ACCESS THE CROSSING.

ALTERNATIVES CONCIDERED WERE NO WORK AND REPLACEMENT OF THE STRUCTURE. REPLACEMENT COST WOULD FAR EXCEDE COST TO REPAIR THE STRUCTURE. THE DEPARTMENT DETERMINED THE RED LISTED STRUCTURE STILL HAS SERVICABLE LIFE, SO WAS NOT ABLE TO BUDGET FULL REPLACEMENT AT THIS TIME. IF REPAIR WORK WERE NOT COMPLETE THE EXISTING STRUCTURE WOULD FALL INTO DISREPAIR AND LEAD TO GREATER NEGATIVE IMPACT TO JURISDICTIONAL AREAS.

SECTION 5 - CONFORMANCE WITH Env-Wt 311.10(c) (Env-Wt 311.07(b)(4))

How does the project conform to Env-Wt 311.10(c)? Please note that for a minimum impact project, the applicant may replace this explanation with a certification signed by a certified wetland scientist that the project is located and designed to minimize impacts to wetlands functions and values.

A FUNCTIONAL ASSESSMENT WAS NOT COMPLETED FOR THE PROJECT AS THE PROPOSED WORK IS TO REPAIR AND MAINTAIN EXISTING INFRASTRUCTURE IMPACTING RIVERINE JURISDITION ONLY. THE PROPOSED PROJECT HAS A LIMITED FOOTPRINT AND WILL ADDRESS EXISTING INFRASTRUCTURE DEFICENCIES AND RESTORE HYDRAULIC CAPACITY. THE PROJECT WILL IMPROVE THE STREAMS FUNCTION BY REDUCING STREAM FLOW VELOCITIES, WHILE CONTINUING TO PROVIDE ECOLOGICAL INTEGRITY, FISH AND AQUATIC LIFE HABITAT/PASSAGE, FLOOD STORAGE AND NUTRIENT PASSAGE.

BUREAU OF ENVIRONMENT CONFERENCE REPORT

SUBJECT: NHDOT Monthly Natural Resource Agency Coordination Meeting

DATE OF CONFERENCE: July 15, 2020 LOCATION OF CONFERENCE: John O. Morton Building ATTENDED BY: NHDOT ACOE NH Fish & Game Sarah Large Mike Hicks Carol Henderson Matt Urban Ron Crickard **EPA** The Nature Conservancy Mark Hemmerlein Pete Steckler Beth Alafat Tim Boodey Arin Mills **Federal Highway** Heidi Stortz Administration Jaimie Sikora **NHDES** Lori Sommer Karl Benedict **NHB** Amy Lamb PRESENTATIONS/ PROJECTS REVIEWED THIS MONTH: (minutes on subsequent pages)

(When viewing these minutes online, click on a project to zoom to the minutes for that project.)

NOTES ON CONFERENCE:

Meeting Minutes

Finalized and approved the June 17, 2020 meeting minutes.

Goffstown, #42840

Arin Mills, NHDOT Environmental Manager, presented the location of the project as bridge 054/116 which carries NH 114 over Gorham Pond Brook in Goffstown. This is a state funded and state executed project. Gorham Pond Brook flows approximately 6.6 miles from the headwater in Dunbarton to the site, adjacent to the convergence with the Piscataquog River. The bridge was constructed about 1972 with the re-alignment of NH 114 to the now more southern alignment. The As-Built plan from 1972 was shown which depicts the original construction with a paved outlet channel. The surrounding landscape was described as rural/residential, with historic Parker Station just to the north. A map was shown with the surrounding conservation lands, to include Piscataquog Land Conservancy and Hopkinton-Everett Flood Control lands nearby the site. Photos were displayed of the both the existing conditions of the inlet/outlet and upstream/downstream.

Tim Boodey, NHDOT Bridge Maintenance, described the project to include installation of a reinforced concrete invert in the bottom of the existing corrugated metal culvert, installation of 2'deep cut off/curtain wall at both inlet and outlet, clearing of brush from the wing walls and repair of existing mortar ruble masonry (MRM) wings. Some brush will include removal of trees greater than 3" in diameter. Tim showed preliminary plans and described the anticipated wetlands impacts, to include permanent impacts for the cut off walls at the inlet and temporary impacts for brush clearing at inlet and outlet. All work in stream can be done by hand, with no equipment in the stream. No proposed rip rap, and use of existing rocks in the streambed. Tim described the existing rocks at the stream outlet (and inlet) are 10-14" above the existing invert and allow water to naturally pool and decrease velocity at the outlet of the bridge. The 6" invert, once installed, will not be above the highest rock at the outlet and will not generate a perched condition.

Arin further described some resources of Gorham Brook based on her review. Gorham Brook is s 3rd order stream, while the Piscataquog River is 4th order stream and under the jurisdiction of the Shoreland Water Quality Protection Act (SWQPA). The Piscataquog River is also a Designated River and comments were solicited from the Local Advisory Committee (LAC). The LAC asked about the creation of a perched condition and impacts to aquatic organism passage as well as decrease in hydraulic capacity, which the DOT said they would take the comments into consideration and would be sure this was addressed in the final wetland application package. The stream is a Tier 3 crossing, with a watershed of 4,174 acres. No previous permits were identified for the site by DES.

Arin further described that both the Piscataquog and Gorham Brook are both predicted warm water streams. A NHB review (NHB20-1159) determined no anticipated impacts to species. US Fish & Wildlife Coordination determined potential for Northern long-eared bat and small whorled pogonia. A 4(d) consistency has been generated and a field review did not locate any species or appropriate habitat for the pogonia within the project area. A Section 106 review for cultural resources determined 'No Potential to Cause Effect'. A FEMA map was shown, depicting the site within a 100-year flood zone with Floodway.

Sarah asked Tim for clarification that no permanent impacts are anticipated at the outlet with the installation of the curtain wall as the end of the pipe would be removed, and no length would be added. Tim concurred. Sarah also clarified that no work in the stream is necessary, Tim also concurred.

Karl Benedict requested a longitudinal profile be provided with the application to help show the impacts to flow conditions once install, specifically at low flow conditions. Tim responded that he can include that, and can extend it outside the pipe at the outlet to help show how the existing rocks are influencing the flow at the outlet. Karl also asked a narrative be included with the application, as he is most concerned with the outlet conditions during low flow once installed. Karl also would like the hydraulic analysis to provide details of the ability of the crossing to pass a 100-year flood event. Karl lastly asked DOT to coordinate with NH Fish & Game regarding impacts to trout passage in the area, as it is known trout inhabit this area. Sarah requested concurrence a 904.09 (rehab/repair of an existing Tier 3 stream) is the appropriate stream crossing rules to address with the proposed work which will include hydraulic analysis, Karl concurred.

Lori Sommer asked that the SADES data be reviewed and provided with the permit application. She does not anticipate mitigation required, although likely will request a follow-up report to describe impacts to fish passage post construction. She further requested data regarding fish species in the area be gathered for potential monitoring post construction. She asked if a dam is in the area and the info was not readily known at the time. Arin said she could look into that data and provide in application.

Carol Henderson asked for clarification on the water diversion, specifically the clean water bypass. Tim clarified the work would be done in two phases, with one side being worked at a time. Carol asked the river be closed off early to prevent impacts to trout spawning, which generally begins around October 1st. She asked the cofferdam be installed ahead of spawning, which is generally late September to December. Tim explained the work is proposed in the winter months and can include timing in the application package.

Mike Hicks said no Essential Fish Habitat (EFH) review needed as Gorham Brook is not on EFH list. He also said he would coordinate internal for a Section 408 review for impacts for a project adjacent to Army Corp lands, he would reach out if more was needed for this review. Beth Alafat concurred with Mike H and Lori S review. Amy Lamb had no comment. Pete Steckler noted the site is identified as a Herring stock location/migratory path according to the Aquatic Restoration Mapper. Jaimie Sikora asked about US Coast Guard navigation review. Arin noted the review was complete with no concerns.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Jefferson, #43078

Arin Mills, NHDOT Environmental Manager, presented the location of the project as bridge 109/061 which carries NH 115 over Red Brook in Jefferson. This is a state funded and state

executed project. Red Brook flows approximately 2.3 miles from the headwater in Low-Burbanks Grant (Hardwood Ridge) to the site, where it then flows 1.3 miles to the convergence with the Isreal River. The bridge was constructed about 1983 with the re-alignment of NH 115. The As-Built plan from 1983 was shown which depicts the changes from the serpentine alignment to the straightened alignment post construction. The surrounding landscape was described as rural/residential, with largely undeveloped private land surrounding the site. No conservation lands surround the site. Photos were displayed of the both the existing conditions of the inlet/outlet and upstream/downstream.

Tim Boodey, NHDOT Bridge Maintenance, described the project to include removal of excess material both upstream and downstream of the culvert, replacement of Mortar Ruble Masonry (MRM) headwalls with reinforced concrete, installation of a 6" invert and installation of low-flow weir at outlet. The work will remove the bridge from the State 'Red List'. Tim said there is no evidence the Brook had moved over time, and the dredging will restore capacity of the bridge. A draft impact plan was shown for both temporary and permanent impact areas. Tim said the work is anticipated to start in September/October, with slope work being complete first. Cofferdams and bypass pipe will be installed ahead of headwall replacement, then the invert will be installed. Tim said a hydraulic summary will be included with the application, although preliminary evaluation indicate the structure will pass the 100-year storm event before and after construction. It was described the sediment removal will reduce velocity entering the culvert, and the low-flow weir will allow water to back-up at the outlet. No evidence of flooding at this location.

Arin further described some resources of Red Brook based on her review. Red Brook is a 2nd order stream to the convergence with Isreal River. StreamStats identified the watershed of 888 acres, making it a Tier 3 crossing. No Designated River, and no previous permits identified. The Wildlife Action Plan identified the Brook as predicted cold-water. No recorded species occurrence per NHB review NHB20-1882. No Priority Resource Areas (PRA) in or adjacent. Site is within 100-year FEMA floodplain. US Fish & Wildlife Service species list determined potential Northern long-eared bat and Canada lynx. 4(d) consistency generated for bat and no impact to habitat for Canada lynx. Cultural resource review has concluded no concerns.

Karl Benedict asked a longitudinal profile be provided with the application. He stated post construction monitoring may be requested to assess the weir. Karl also asked the delineation be reviewed, and Sarah said she had visited the site recently and will review the delineation and be sure it is provided with the application plans and impacts. Karl asked velocity calculations be reviewed.

Lori Sommer asked about the construction material of the weir. Tim said it would be constructed of granite curb, and tied (embedded) into the streambed. Lori also said she may want monitoring post construction for the weir.

Carol Henderson said the Sept/Oct timeline looked good for work start as impacts for trout spawning, and to coordinate with Fish & Game if there is a delay.

Mike Hicks said no Essential Fish Habitat (EFH) review needed. He asked for clarification on use of dredged material and Tim said it would be spread and seeded within the ROW and outside jurisdictional area. Mike said a memo of site visit can cover pogonia review. Beth Alafat asked about observations of invasives and Arin said a site review found no invasives in the project area and was found to be good pollinator habitat. Pete Steckler had no comment.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Northwood, #43077

Heidi Stortz, NHDOT Environmental Coordinator, presented the location of the project as bridge 045/099 which carries NH 107 over Narrows Brook in Northwood. This is a state funded and state executed project. Narrows Brook flows approximately 1.2 miles from headwaters to the site. where it then flows 0.25 miles into Northwood Lake. The bridge was constructed about 1922. The surrounding landscape was described as rural/residential. No conservation lands surround the site. Photos were displayed of both the existing conditions of the inlet/outlet and upstream/downstream. Tim Boodey, NHDOT Bridge Maintenance, described the project to include replacement of center portion of concrete slab deck, replace rip rap for structure protection at two wings, remove toe wall and repair abutments in kind. The work will remove the bridge from the State 'Red List'. Tim said the work is anticipated to start in September/October. Tim said a hydraulic summary will be included with the application, although preliminary evaluation indicate the structure will pass the 100-year storm event before and after construction. No evidence of flooding at this location. Heidi further described some resources of Red Brook based on her review. Red Brook is a 2nd order stream that flows into Northwood Lake. StreamStats identified the watershed of 5,900 acres, making it a Tier 3 crossing. No Designated River, and no previous permits identified. The Wildlife Action Plan identified the Brook as predicted warm water. NHB review NHB20-2230 was submitted subsequent to the meeting. Spotted Turtle was identified as occurring in the vicinity. No Priority Resource Areas (PRA) in or adjacent. Site is within 100-year FEMA floodplain. US Fish & Wildlife Service species list determined potential Northern long-eared bat and small whorled pogonia. 4(d) consistency generated for bat and no impact small whorled pogonia. Cultural resource review has concluded no concerns.

Karl Benedict asked for a plan to show existing versus proposed areas of rip rap. Karl also asked about the balance of structural stability with vegetated banks. Tim said they will be leaving the riprap bare immediately at the interface with the bridge. Karl asked about access and if there is going to be a bypass or water diversion. Tim said they will be working from above and that a clean water bypass was not needed for staging. Karl would like a water diversion for the repair to the abutment through the bridge.

Lori Sommer indicated that no mitigation would be required so long as the riprap was existing/previously existed; which Tim agreed was the case.

Mike Hicks said he concurred with project as proposed.

Beth Alafat concurred with comments.

Pete Steckler mentioned the stream is identified as a Herring stock location.

Carol Henderson stated that there are anadromous fish and the time of year that is proposed for the work she doesn't have any concerns.

This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.

Mitigation Summary

The proposed work and mitigation associated with Jefferson #43078 were discussed at the July 15, 2020 Natural Resource agency meeting. The minutes do not reflect the full details of the conversation, so we have summarized the mitigation approach within this summary. The crossing's inlet and outlet inverts are currently at grade with Red Brook and stream connectivity is intact. The project proposes to install a 6" invert lining through the deteriorating metal culvert to rehabilitate the structure; the project also includes removal of material within the stream at the inlet and outlet of the crossing to improve the hydraulic capacity of the crossing and to reduce the potential for wood and other materials getting caught at the crossing. Due to the proposed work and permanent impacts to the stream channel, the project includes the installation of a downstream fish weir as a hydraulic control to back water through the crossing during low flows. DOT included the installation of the fish weir into the design in order to maintain Red Brook's watercourse connectivity and serves as the permittee responsible mitigation for the permanent impacts associated with the project.

At the Resource Agency meeting Lori Sommer and Karl Benedict, NHDES Wetlands Bureau, indicated that monitoring of the weir would be likely required. Included with this application is a proposed monitoring plan for 3 years of monitoring post construction. This protocol will be implemented if the permit conditions require monitoring of the fish weir.

Jefferson, #43078 Fish Weir Monitoring Plan

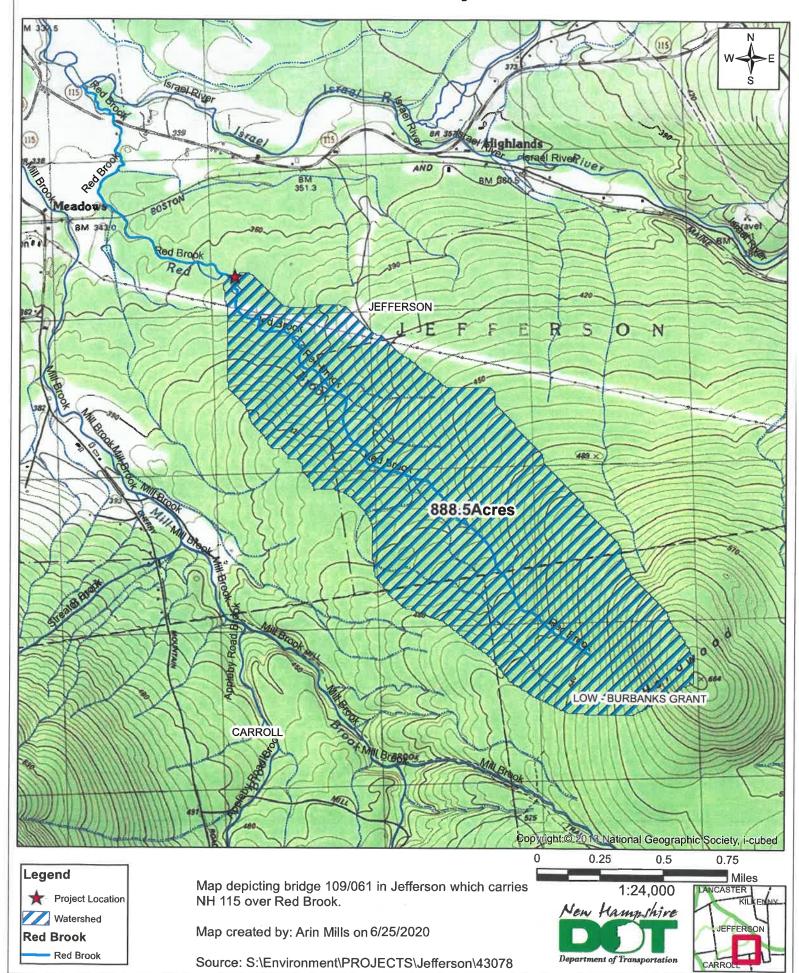
In order to establish if the fish weir serves its purpose of backwatering water through the rehabilitated pipe, the condition of the weir and water depths upstream of the weir and through the pipe will be collected for three years.

Monitoring Protocol:

Monitor during "low flow" stream conditions (July through October) and for 3 years post construction.

- 1. Check the condition of the weir to ensure it is structurally intact and in good condition.
 - a. Weir is still in place
 - b. Weir is not missing any rocks that make up the structural integrity
 - c. Initial monitoring year measure the distance from the outlet invert to the weir
- 2. Measure the water depth within the stream channel upstream of the fish weir but before the outlet of the structure
- 3. Measure the water depth within the structure
- 4. Observations of water flow
- 5. Observations of aquatic life

Jefferson, Project #43078



StreamStats Report

Region ID: Workspace ID: Clicked Point (Latitude, Longitude):

Time:

NH NH20200420201409885000 44.36605, -71.45778 2020-04-20 16:14:36 -0400



Basin Characteristics

Parameter						
Code	Parameter Description	Value	Unit			
DRNAREA	Area that drains to a point on a stream	1.47	square miles			
APRAVPRE	Mean April Precipitation	3.196	inches			
WETLAND	Percentage of Wetlands	0.7767	percent			
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	197	feet per mi			

General Disclaimers

This watershed has been edited, computed flows may not apply.

Peak-Flow Statistics Parameters[Peak Flow Statewide SIR2008 5206]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	1.47	square miles	0.7	1290
APRAVPRE	Mean April Precipitation	3.196	inches	2.79	6.23
WETLAND	Percent Wetlands	0.7767	percent	0	21.8
CSL10_85	Stream Slope 10 and 85 Method	197	feet per mi	5.43	543

Peak-Flow Statistics Flow Report[Peak Flow Statewide SIR2008 5206]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	SEp	Equiv. Yrs.
2 Year Peak Flood	60.7	ft^3/s	37	99.7	30.1	3.2
5 Year Peak Flood	101	ft^3/s	60.4	168	31.1	4.7
10 Year Peak Flood	135	ft^3/s	79.2	229	32.3	6.2
25 Year Peak Flood	183	ft^3/s	104	322	34.3	8
50 Year Peak Flood	223	ft^3/s	122	405	36.4	9
100 Year Peak Flood	270	ft^3/s	143	509	38.6	9.8
500 Year Peak Flood	389	ft^3/s	190	799	44.1	11

Peak-Flow Statistics Citations

Olson, S.A.,2009, Estimation of flood discharges at selected recurrence intervals for streams in New Hampshire: U.S.Geological Survey Scientific Investigations Report 2008-5206, 57 p. (http://pubs.usgs.gov/sir/2008/5206/)

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Application Version: 4.3.11

NH Department of Transportation Bureau of Bridge Maintenance

Project Bridge Maintenance 109/061, #43078

Env-Wt 904.09 Repair, Rehabilitation, or Replacement of Tier 3 and Tier 4 Crossings Stream Crossing Report

Prepared by: Timothy Boodey, P.E. and Arin Mills

Env-Wt 904.09(a)- The repair, rehabilitation, or replacement of tier 3 stream crossings shall be limited to existing legal crossings where the tier classification is based only on the size of the contributing watershed.

Crossing's Drainage Area: 1.4 square miles, Tier 3 crossing

Env-Wt 904.09(b)- Rehabilitation of a culvert or other closed-bottom stream crossing structure pursuant to this section may be accomplished by concrete repair, slip lining, cured-in place lining, or concrete invert lining, or any combination thereof, except that slip lining shall not occur more than once.

Project Description: Work will include removal of excess material within the stream both upstream and downstream of the crossing, repair of the existing Mortar Rubble Masonry (MRM) headwalls and wingwalls, installation of a 6" reinforced concrete invert within the culvert and install a low-flow weir downstream of the outlet. Permanent impacts are associated with the installation of the fish weir, installation of cut off walls at inlet and outlet and dredging of material to restore hydraulic capacity.

Env-Wt 904.09(c) A project shall qualify under this section only if a professional engineer certifies, and provides supporting analyses to show, that:

(1) The existing crossing does not have a history of causing or contributing to flooding that damages the crossing or other human infrastructure or protected species habitat. See PE Certification form elsewhere in this application.

*Included with this form is a hydraulic capacity report prepared by the project PE that supports the findings for Env-Wt 904.09(c).

See attached report

- (2) The proposed stream crossing will:
 - a. Meet the general criteria specified in Env-Wt 904.01; See page 2 for Env-Wt 904.01 form.
 - b. Maintain or enhance the hydraulic capacity of the stream crossing;

 This project proposes to repair and rehabilitate a legal Tier 3 crossing. This project does not propose to replace the structure. The crossing will be able to convey the design storm event after the proposed work is complete. The 6" invert will not cause a significant change to the crossings hydraulic capacity. The removal of excess material within the stream channel and bank is proposed to improve the capacity of the crossing.
 - c. Maintain or enhance the capacity of the crossing to accommodate aquatic organism passage;
 - The proposed work, including the removal of excess material and downstream weir, will maintain the existing AOP capacity during regular and low flows.
 - d. Maintain or enhance the connectivity of the stream reaches upstream or downstream of the crossing; and

The proposed repair, rehabilitation, and maintenance work will not adversely affect the connectivity of the stream within reach of the structure. The stream is at grade with the crossing's inlet and outlet and will continue to be at grade post construction. The removal of excess material will provide more capacity within the stream channel upstream and downstream of the crossing.

e. Not cause or contribute to the increase in the frequency of flooding or overtopping of the banks upstream or downstream of the crossing.

There is no history of flooding or overtopping at this location. The structure was designed for the 50 year storm event when installed. Based on modeling the structure will be able to convey this event after the proposed work is complete.

Env-Wt 904.09(d) Repair, rehabilitation, or replacement of a tier 4 stream crossing shall comply with Env-Wt 904.07(d). (if not tidal, answer N/A) N/A

Env-Wt 904.01 General Design Considerations Applicable to All Stream Crossings

- (a) All stream crossings, whether over tidal or non-tidal waters, shall be designed and constructed so as to:
 - 1) Not be a barrier to sediment transport;
 The proposed work will not create a barrier to sediment transport. Red Brook will continue to support similar natural stream processes as it does today, including sediment transport.
 - 2) Not restrict high flows and maintain existing low flows;

The crossing post construction will pass high flows similarly to how it does currently. Based on a hydraulic analysis of the structure, it will continue to convey the design event it was designed to handle when installed. The structure is inlet controlled so higher flows, including the 100-year event, will increase the backwater through the bank areas but be conveyed without overtopping the road or the existing culver. In order to compensate for changes to low flow conditions by removing excess material within the stream channel upstream and downstream of the crossing the project includes the installation of a low flow weir downstream of the outlet to backwater through the crossing during low flows.

3) Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction;

The proposed work will not disrupt the movement of aquatic life indigenous to the waterbody. The stream will remain connected at all flows including low flows due to the installation of the downstream weir.

- 4) Not cause an increase in the frequency of flooding or overtopping of banks;

 There is no history of flooding or overtopping at this location. Based on the hydraulic analysis performed the proposed work will not change the frequency of flooding at this crossing.
- 5) Maintain or enhance geomorphic compatibility by:
 - a. Minimizing the potential for inlet obstruction by sediment, wood, or debris; and

b. Preserving the natural alignment of the stream channel;

The proposed work will reestablish the approximate stream channel alignment and grades the initial construction. Currently during normal and low flows, Red Brook is conveyed through narrow channels on the inlet and outlet of the structures. The removal of sediment from the inlet and outlet of the structure will reduce the possibility of obstruction due to debris. The proposed downstream weir is sufficiently downstream from the structure so as to not pose a debris hazard for the crossing. Our experience with similar structures installed around New Hampshire is these weirs do not cause a hazard due to obstruction potentially causing aggregation and issues at the inlet.

6) Preserve watercourse connectivity where it currently exists;

There will be no change to watercourse connectivity from what currently exists.

- 7) Restore watercourse connectivity where:
 - a. Connectivity previously was disrupted as a result of human activity(ies); and
 - b. Restoration of connectivity will benefit aquatic life upstream or downstream of the crossing, or both;
 - There will be no change to watercourse connectivity from what currently exists. A downstream fish weir will be installed to backwater water through the crossing during low flow conditions to maintain stream connectivity through the crossing at all flow rates.
- 8) Not cause erosion, aggradation, or scouring upstream or downstream of the crossing; and The removal of sediment from the crossing will increase the cross sectional area of the stream upstream and downstream of the structure allowing for lower water velocities during normal and high flows. More water should be able to be conveyed through the inlet controlled structure, reducing backwater conditions that may lead to aggradation of material at the inlet.
- 9) Not cause water quality degradation.

The proposed work will not degrade water quality within Red Brook. Please refer to the construction sequence and the erosion control plans for the dewatering plan, stream diversion details, and erosion control measures for the project limits and project components.

- (b) For stream crossing over tidal waters, the stream crossing shall be designed to:
 - 1) Match the velocity, depth, cross-sectional area, and substrate of the natural stream: and N/A- crossing is along a fresh water stream
 - 2) Be of sufficient size to not restrict bi-directional tidal flow over the natural tide range above, below, and through the crossing.

N/A – crossing is along a fresh water stream

NH Department of Transportation Bureau of Bridge Maintenance Project: Jefferson 109/061, #43078

Prepared by: Timothy Boodey, P.E.

Stream Crossing Rules for Standard Application Tier 3, repair/preservation/rehabilitation project Hydraulic Report/ Summary

Crossing's Drainage Area: 1.4 square mile

Existing Conditions: The existing multi-plate steel culvert (11'-5" wide by 7'-3" tall) was installed in 1984, is currently in poor condition and on the Department's Red List due to deterioration of the steel structure. The stream bed leading to the culvert is fairly flat (see stream profile) and material has aggregated at the inlet and out let leading to a reduced channel and depth prior to and after the culvert (see pictures that accompany this application). The stream leading to the inlet has an existing slope of less than 0.05%. During low flow conditions Red Brook flows in channels only five to eight feet wide and two feet deep. This shallow slope has contributed to the accumulation of material at the inlet and outlet. The mortar rubble headwalls have deteriorated and started to fall down in places. The existing crossing was designed to convey the 50-year storm event.

Project Description: This project proposes to install a reinforced concrete invert in the existing structure. This rehabilitation will keep the existing structure in service for several decades. Based on this bridge type and scope of this project, no additional rehabilitations of this structure will be proposed. The next major project at this location will be a bridge replacement.

Existing material will be removed from within the stream at the inlet and outlets sides of this crossing to restore the full bank width and hydraulic capacity of the crossing. We are proposing to use natural rock to construct a "fish weir" downstream of the structure to maintain water through the culvert during low flow conditions.

The MRM headers and wing walls will be rebuilt in kind as needed.

Proposed Conditions:

Information from the as built plans and site visits were used to model the existing crossing. Information and data from USGS Streamstats were used to review the existing and proposed hydraulic capacity. Based on modeling of the proposed structure using FHWA HY-8 software, it will be able to convey the original design 50-year storm event when the reinforced concrete liner is installed. There is no history of flooding or overtopping at this crossing. The change in invert material has little effect on the outlet and tail water velocity in part due to the very shallow slope of the streambed and size of the culvert relative to the anticipated event flow of Red Brook. Removing the built up granular material at the inlet and outlet will reduce the velocity of Red Brook leaving the crossing. The proposed reinforced concrete invert will increase the inlet and outlet elevations of the crossing (reference the longitudinal profile within the plan set for relative invert elevations). The center notch of the proposed rock fish weir will match the as built outlet elevation, backing up water through the pipe during low flow conditions.

mitigating the effect of a perch to aquatic organisms. The weir will be installed with guidance from NH Fish and Game. There is no rip rap proposed to be added to the crossing.

*Included with this form is supporting analysis by way of photos and plans

Env-Wt 904.01 General Design Considerations Applicable to All Stream Crossings

- (a) All stream crossings, whether over tidal or non-tidal waters, shall be designed and constructed so as to:
 - 1) Not be a barrier to sediment transport;
 - 2) Not restrict high flows and maintain existing low flows;
 - 3) Not obstruct or otherwise substantially disrupt the movement of aquatic life indigenous to the waterbody beyond the actual duration of construction;
 - 4) Not cause an increase in the frequency of flooding or overtopping of banks;
 - 5) Maintain or enhance geomorphic compatibility by:
 - a. Minimizing the potential for inlet obstruction by sediment, wood, or debris; and
 - b. Preserving the natural alignment of the stream channel;
 - 6) Preserve watercourse connectivity where it currently exists;
 - 7) Restore watercourse connectivity where:
 - a. Connectivity previously was disrupted as a result of human activity(ies); and
 - b. Restoration of connectivity will benefit aquatic life upstream or downstream of the crossing, or both;
 - 8) Not cause erosion, aggradation, or scouring upstream or downstream of the crossing; and
 - 9) Not cause water quality degradation.
- (b) For stream crossing over tidal waters, the stream crossing shall be designed to:
 - 1) Match the velocity, depth, cross-sectional area, and substrate of the natural stream: and
 - 2) Be of sufficient size to not restrict bi-directional tidal flow over the natural tide range above, below, and through the crossing.

Env-Wt 904.09(a)- The repair, rehabilitation, or replacement of tier 3 stream crossings shall be limited to existing legal crossings where the tier classification is based only on the size of the contributing watershed.

Env-Wt 904.09(b)- Rehabilitation of a culvert or other closed-bottom stream crossing structure pursuant to this section may be accomplished by concrete repair, slip lining, cured-in place lining, or concrete invert lining, or any combination thereof, except that slip lining shall not occur more than once. (*Not applicable to repair*)

Env-Wt 904.09(c) A project shall qualify under this section only if a professional engineer certifies, and provides supporting analyses to show, that:

- (1) The existing crossing does not have a history of causing or contributing to flooding that damages the crossing or other human infrastructure or protected species habitat;
- (2) The proposed stream crossing will:
 - a. Meet the general criteria specified in Env-Wt 904.01; (see page 2 of this form for Env-Wt 904.01)

- b. Maintain or enhance the hydraulic capacity of the stream crossing;
- c. Maintain or enhance the capacity of the crossing to accommodate aquatic organism passage;
- d. Maintain or enhance the connectivity of the stream reaches upstream or downstream of the crossing; and
- e. Not cause or contribute to the increase in the frequency of flooding or overtopping of the banks upstream or downstream of the crossing.

Env-Wt 904.09(d) Repair, rehabilitation, or replacement of a tier 4 stream crossing shall comply with Env-Wt 904.07(d). (if non-tidal, N/A)

I hereby certify that the above referenced project meets the criteria of Env-Wt 904.09(c).

Name:

Date

3 of 3

Env-Wt 523.03 Application Requirements for Dredging Projects.

The project-specific information required by Env-Wt 310.01(c)(1) or Env-Wt 311.03(b)(11), as applicable, for a dredge project shall be as follows:

- a) A description of the material and area to be dredged, including:
 - The volume of material to be dredged, in cubic yards for projects in public waters;
 N/A Red Brook is Tier 3 stream that is lower than a 4th order and it is not a great pond therefore it is not classified as a public water.
 - 2) The square footage of the area to be dredged for non-public waters or wetlands; 560 SF
 - 3) The type of material to be dredged; an Predominantly sandy native material built up within the stream and along the bank of the stream as well as stream channel material which is comprised of sand, gravel, and cobble.
 - 4) Whether any invasive species are present;

Based on a field visit on July 2, 2020 no invasive plant species were observed within or adjacent to the project area.

b) The erosion and sediment control measures proposed to be used;

Silt fence will be used to separate the areas to be dredged from those that will not be. A combination of silt fence and sediment logs will be used at the location where dredged materials will be stored to dewater prior to reuse.

c) The methods proposed to dewater the dredged material;

The dredged material will be allowed to drain/dry behind siltation fence at least 20' upland of delineated wetlands.

- The location at which dewatering will occur;
 Please refer to the impact plan set for the locations the dredged material will be dewatered.
 The locations are labeled as "Dewatering Basin" on the plan.
- The equipment proposed to perform the dredging;
 An excavator will be used to remove the dredged materials and stockpile it in the Dewatering Basins.
- f) The proposed disposal site;
 The dredged materials will be used on site along the existing right of way on the roadway slopes outside of wetlands jurisdiction. The material will be stabilized and vegetated.

- g) Identification of all known potential sources of soil or water contamination; A review of DES OneStop data was conducted and it was determined no known contamination/hazardous materials are known to occur within or adjacent to the project area.
- h) If potential sources are documented in (g), above, the method of sampling for contaminants and a plan to manage contaminated materials;
 N/A
- i) A description of how dredged material will be contained during the dredging process; and The area to be dredged will be contained within a siltation fence perimeter separate from the Clean Water Bypass provide. Material removed will be placed in the Dewatering Basins to drain/dry prior to being reused on site. The dredged area will be stabilized and bank areas revegetated. Material reused on site will be stabilized and vegetated.
- j) An explanation of the timing of the project and how such timing helps minimize impacts on aquatic resources.
 - The dredging work will occur in the fall, prior to winter, during a period of low flow, and prior to other project work.

To: Arin Mills

John O. Morton Building

7 Hazen Drive

Concord, NH 03302-0483

From: NH Natural Heritage Bureau

Re: Review by NH Natural Heritage Bureau of request dated 6/25/2020

NHB File ID: NHB20-1882

Location: Tax Map(s)/Lot(s):

Jefferson

Project Description: Install concrete invert in multi-plate pipe and replace

deteriorated headwall

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

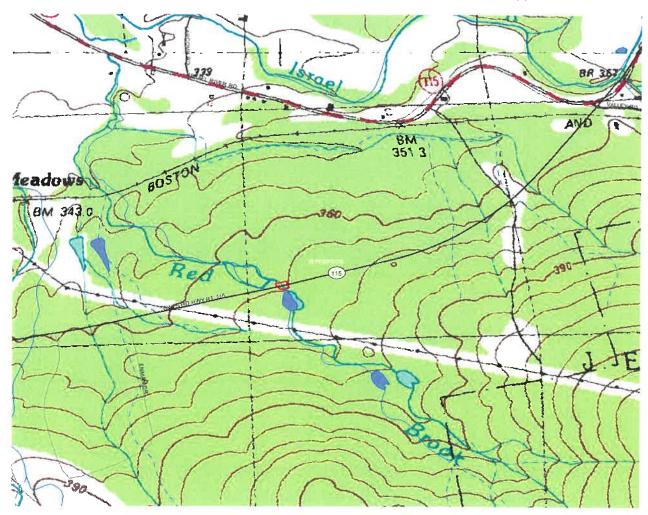
A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 6/24/2021.

Date: 6/25/2020

Applicant: Arin Mills

MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB20-1882



Mills, Arin

From:

Henderson, Carol

Sent:

Friday, September 18, 2020 9:23 AM

To:

Mills, Arin

Subject:

Re: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

Attachments:

NHFGD Response letter 7-2020.pdf

Hi Arin:

Sorry for the delay. This response is for both projects that you referenced by email, located in Goffstown and Jefferson. I have attached a letter that the previous NHFGD Director submitted to NHDES prior to his leaving the Department in August. This letter relates to the Department's standing on TOY restrictions for coldwater fish, which may or may not be revisited by the Department's new Director in the future. The Department's recommendation is to adhere to the TOY restrictions imposed by NHDES Wetlands rules. If you have any questions or comments, please do not hesitate to discuss with me. Thank you, Carol

From: Mills, Arin

Sent: Monday, September 14, 2020 7:07 AM

To: Henderson, Carol

Cc: Tuttle, Kim; Doperalski, Melissa; Magee, John

Subject: RE: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

Good morning Carol,

I am just trying to close the loop on the Goffstown (#42840) bridge maintenance as it relates to the discussion at the July 15, 2020 Natural Resource meeting for trout spawning. Is there a specific date range you could provide that would protect spawning trout in the area? I have attached both the NR meeting minutes that summarized the discussion. Let me know if there are any additional concerns you may have for the project as we work to finalize this permit application.

Thanks.

Arin

From: Mills, Arin

Sent: Monday, July 20, 2020 12:01 PM

To: Doperalski, Melissa

Cc: Henderson, Carol; Tuttle, Kim

Subject: RE: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

Melissa,

During the NR meeting Tim Boodey, Bridge Maintenance Engineer, described rocks currently existing at the outlet of the pipe are 10-12" above the existing invert which allow the water to naturally pool. He further described the 6" invert, once installed, will not be above the highest rock at the outlet and will not generate a perched condition. DES requested a longitudinal profile be included with the permit application to depict conditions during low flow to ensure perched conditions are not created with the installation of the invert. A weir is not proposed at this time and perched conditions are not anticipated.

Does that information help?

Arin

From: Doperalski, Melissa

Sent: Monday, July 20, 2020 11:41 AM

To: Mills, Arin

Cc: Henderson, Carol; Tuttle, Kim

Subject: RE: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

That sound good. Can you assure that the invert work will not result in the culvert becoming perched and if perched now, it will be remedied by the construction of a weir?

From: Mills, Arin <Arin.Mills@dot.nh.gov> **Sent:** Monday, July 20, 2020 11:27 AM

To: Doperalski, Melissa < Melissa. Doperalski@wildlife.nh.gov>

Cc: Henderson, Carol < Carol. Henderson@wildlife.nh.gov>; Tuttle, Kim < Kim. Tuttle@wildlife.nh.gov>

Subject: RE: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

Hello Melissa,

Thanks for reaching out regarding Wood turtle concerns for the project. We can certainly include Environmental commitments for the species to make the bridge maintenance crew working on the project aware of the potential for the species to occur in or around the project area. At this time we anticipate the work being conducted primarily in the fall and winter months, at a time when the species would likely be hibernating in the river. In my experience with Wood turtles the area where the work will take place along Gorham Pond Brook is not appropriate hibernation habitat given the shallow and fast moving water conditions at the crossing. That said, I will include the following Environmental commitments for protection and awareness of the species:

- Turtle species of concern are known to occur in the vicinity of the project. During the turtle nesting season from May 15th through July 1st, the Contractor shall review any areas with exposed soils that will experience truck traffic or equipment staging for turtle nesting activity. If turtles are found laying eggs in an area that will be disturbed, the Contractor shall cease work immediately to avoid disturbing the turtle, and contact the Bureau of Environment (Arin Mills, 271-3226) for further instructions and coordination with NH Fish & Game.
- The NHFG Turtle Flyer shall be shared with all operators, employees and contractors working on the project. All observations of wood turtles, spotted turtles, box turtles or Blanding's turtles shall be immediately reported to NHFG (Melissa Doperalski 603-271-1738 or Josh Megysey 603-271-0463). (I will include the turtle flyer)

Let me know if you feel there are additional commitments you feel may be appropriate for protection of the species. Feel free to reach out if you have any additional comments or questions.

Arin Mills Environmental Manager, Operations Management NH Department of Transportation **Bureau of Environment** 7 Hazen Drive, Concord, NH 03302 Ph: (603)271-0187

Arin.mills@dot.nh.gov

From: Doperalski, Melissa < Melissa. Doperalski@wildlife.nh.gov>

Sent: Monday, July 20, 2020 10:58 AM **To:** Mills, Arin <<u>Arin.Mills@dot.nh.gov</u>>

Cc: Henderson, Carol < Carol. Henderson@wildlife.nh.gov>; Tuttle, Kim < Kim. Tuttle@wildlife.nh.gov>

Subject: FW: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

Importance: High

Morning Arin,

I hope this email finds you well. As we have a history working on wood turtles, I figured I would reach out to you directly. The agenda includes proposed project **Goffstown, #42840.** I would anticipate that we would have wood turtles at this site so please consider their needs when designing this project. If you wish to discuss further, please let us know.

Thanks, Melissa

From: Large, Sarah <Sarah.Large@dot.nh.gov>

Sent: Monday, July 6, 2020 1:12 PM

To: AdamsJr, Joseph < Joseph.AdamsJr@dot.nh.gov >; Baldwin, Margarete < Margarete.Baldwin@dot.nh.gov >; Beaulieu,

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Magee, John <john.magee@wildlife.nh.gov>; Josh McAllister (jmcallister@hebengineers.com)
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<Laura.Black@dncr.nh.gov>; Leigh Levine (E-mail) <Leigh.Levine@fhwa.dot.gov>; Lewis, Eben
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Landry, Steve <Stephen.Landry@des.nh.gov>; Diers, Ted <Ted.Diers@des.nh.gov>; Tilton, Mary Ann
<<u>Mary.Tilton@des.nh.gov</u>>; Drew, Tim <<u>Timothy.Drew@des.nh.gov</u>>; Boisvert, Tracey <Tracey.Boisvert@dncr.nh.gov>;
Trubey, David < David.Trubey@dncr.nh.gov>; Vicki Chase < VChase@normandeau.com>; White, Timothy
<Timothy.White@des.nh.gov>
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Subject: July 2020 NHDOT Natural Resource Agency Coordination Meeting **AGENDA**

Importance: High

Good afternoon,

I hope this email finds you well. If you plan to participate in this month's Natural Resource Agency meeting, please read through my email below. I know that this email is long, but I hope that the information I provided will be helpful to run a smooth and beneficial meeting.

The July 2020 NHDOT Natural Resource Agency Coordination Meeting is scheduled for next Wednesday July 15, 2020 starting at **9am** via **Zoom!**

Following virtual meeting guidelines to keep our connection secure I only distribute the zoom meeting link information to those that plan to attend and do not widely distribute the meeting information out to everyone on the Natural Resource Agency Meeting contact lists. Please review the attached word document of anticipated attendees and email me if you are not listed and would like to attend. Zoom meeting access information will be distributed next week on Tuesday July 14th along with the presentations for each project presenting at this meeting. You will be able to access the meeting via the weblink, which depending on your computer set up will allow you to access visuals and audio, or by calling in via one of the phone numbers that will be provided. If the computer you are using has troubles accessing the audio of that device, feel free to call into the meeting as well to access audio that way.

The agenda is attached and is also available on the Department's website at:

https://www.nh.gov/dot/org/projectdevelopment/environment/units/project-management/nracrmeetings.htm

9:00 Approve July 17, 2020 meeting minutes

9:10 Goffstown, #42840

9:40 Jefferson, #43078

10:00 Northwood, #43077

Approximate End: 10:20 am

Another safety precaution is the double layer of "authentication" meaning our meeting will have a meeting ID and a password. Accessing both on the computer via the web link or via a phone through one of the provided phone numbers you will first be prompted to enter the meeting ID and then the second number zoom asks for is the password.

When each of you join the meeting, zoom will notify you that you are in the waiting room. As the host, I will then invite you to join the meeting when it is appropriate. This virtual waiting room will "hold" presenters/ attendees in the "waiting room" until it is your project's turn to present to cut back on distractions and hopefully provide some helpful structure to the meeting. [Again, meeting information will be forth coming next week]. I have added 5 minutes to the end of each project for transition time between projects, but as always the times listed on the agenda are approximate. Please log onto the meeting at least 5 minutes prior to your project time in the event that the meeting is running ahead of schedule. This is unlikely, but we appreciate you being prepared and flexible. We ran behind last month, so if you are not admitted to the meeting right at your scheduled time on the agenda please be patient, and don't fret. I will do my best to email people if we are running behind, but I ask mostly for your patience.

If you are not a regular attendee or a presenter, please consider this email as an invitation to the meeting, which is at the request of a project sponsor as one or more of the projects listed below relate directly to your organization or program. If you are interested in attend, please respond to this email to let me know so that I can provide you with the meeting log in information and look for you in the zoom waiting room. Please feel free to join for the projects that apply to you.

If you are presenting a project, please review the presentation tips found NHDOT's Natural Resource Agency website as well as some specific meeting over view comments and zoom helpful hints listed below. All participants will be muted upon entry to the meeting in hopes to cut back on interruptions and background noises interrupting the meeting. As indicated above we are also implementing the waiting room feature to hopefully help with this as well. Overall if you anticipate having some noises around you while you are on the call, we completely understand, but ask that you please use the mute feature to mute yourself when not speaking to reduce the added sound to the meeting that might be distracting. ***Helpful mute/unmute tip: To unmute/mute yourself you can either dial *6 on your phone if you are accessing audio to the meeting via a phone. If you are accessing the meeting via a computer and using the computer microphone for audio, when you are muted you can hold the space bar on your computer's keyboard to speak and then release the space bar to remain muted! (Thank you Joanne for the space bar helpful trick).

Presenters and NHDOT project team attendees:

- 1. Please prepare a power point presentation (saved as a pdf) or have plans, photos, or some visual to have for your project and provide them to me by close of business **Monday July 13**th. This is very important as we have a few Resource Agency members who can only join us over the phone and will not be able to see the presentations via zoom screen sharing. I have also received feedback from Resource Agency Representatives that the advanced information allows them to provide more informed and beneficial feedback.
- 2. When you join the meeting at the time listed for your project (provided in the attached agenda) you will be held in the zoom waiting room until the project prior to yours has concluded presenting and discussions are complete. Please be patient. I will then welcome you to the meeting. Initially you will be muted, as the host I

fortunately will have the ability to assist with unmuting those that need assistance. Please discuss amongst your team who will be the primary presenter and therefore who will be sharing their computer screen to present the powerpoint or visuals. Please wait for the project to be introduced by Andy O'Sullivan and at that time whomever is the primary presenter please select the share screen button (looks like a green square with an arrow pointing up within in). At the conclusion of your presentation and after comments from the resource agency members I ask that the primary presenter please un-share their screen to prepare for the next project.

Resource Agency Members:

I am planning to put you all on mute during the project team's presentation to help with reducing background noises/ feedback from each of our respective locations during the presentation. Please feel free to unmute yourself (see helpful tip above) to chime in with questions during the presentation. I suggest that if you don't have a web cam enabled, that you indicate who is speaking and then to speak. At the conclusion of the presentation, I will invite you all to provide your comments. In order to cut back on people accidentally talking over one another I will do a "roll call" type of request for comments. For example, I will say Karl Benedict, NHDES, do you have any comments? Then Karl would ask his questions and provide his feedback. And then I would ask the next person and then the next. And at the end of roll call I will ask for any other comments

Thank you all in advance for your patience, understanding, and flexibility while we navigate this new way of hosting and meeting for the monthly Natural Resource Agency Meetings.

Please let me know if you have any questions, comments, or concerns.

Warm wishes,

Sarah Large
Wetlands Program Analyst
NH Department of Transportation
Bureau of Environment



Glenn Normandeau Executive Director

New Hampshire Fish and Game Department

11 Hazen Drive, Concord, NH 03301-6500 Headquarters: (603) 271-3421 Web site: www.WildNH.com TDD Access: Relay NH 1-800-735-2964

FAX (603) 271-1438 E-mail: info@wildlife.nh.gov

July 23, 2020

Department of Environmental Services c/o Mary Anne Tilton 29 Hazen Drive Concord, NH 03301

RE: Comments on Revised Wetlands Rules dated 4-30-2020

Dear Mary Anne:

The NH Fish and Game Department (NHFGD) has reviewed the latest updates to the NH Wetlands Rules dated 4-30-2020 and we offer the following comments:

Env-Wt. 307.04 Protection of Fisheries and Breeding Areas Required. ...(b) Not discharge sediment to *documented* amphibian and migratory bird breeding areas during spawning or breeding seasons, as applicable, which could necessitate suspending the activities; and

How or what database is being utilized to identify the **documented** amphibian or migratory bird breeding areas in order to meet this requirement? Also, is the intent to rely on NHFGD staff to provide this information?

Env-Wt. 307.10 Dredging Activity Conditions. ... (g)... (1) Between October 1 and March 31 for any documented occurrence of a cold water fishery or threatened or endangered fishery; or

1) Primarily for municipal or state projects, the Department believes that the use of appropriate construction BMP's (silt fencing, coffer dams, etc.) and shortened length of construction time within a waterbody is more important than the proposed time of year (TOY) restriction for a cold water fishery, especially if the NHFGD's database is utilized to identify the documented occurrence. The Department's fishery surveys and database are for a "detect only" status within the waterbody and not necessarily evidence of spawning activity in any particular location. Also, many of the State and municipal projects address severely deficient infrastructure (culverts, bridges, roadways) and repair or replacement of the deficient infrastructure ultimately improves the conditions within the watershed. For the above mentioned reasons NHFGD did not propose or support TOY restrictions during the initial Wetlands Rules re-write.

Mary Anne Tilton, NHDES July 23, 2020 Page 2

2) Referring to the threatened and endangered fishery

- a) The word 'fishery' generally implies a human use associated with the fish resource which isn't the focus (or legal) when referring to threatened or endangered fish species. The NHFGD suggest using consistent terminology as referenced in other portions of rules such as 'threatened or endangered species'.
- b) The identified no dredge dates of 'October 1 to March 31' may be recommended for some species but do not apply to fish species currently listed as threatened or endangered in NH. Avoiding impacts to threatened or endangered species during the spawning season is important, but impacts to the habitats which these species depend on could occur at any time of the year and impacts are determined by the type and scale of the project. The distribution of these threatened or endangered fish species is limited enough that we should be able to avoid and minimize impacts to these species throughout the year, as long as NHFGD is given adequate notification and involved early in the existing review process that currently exists.
- c) Because of #1 and 2 above, NHFGD recommends eliminating the reference to 'threatened or endangered fishery' under 307:10g or alternatively applying a more general approach similar to Env-Wt. 310.03(c) such as 'Any work shall be timed and carried out to protect documented [cold water (in current rule referenced here)], threatened or endangered species.'

Env-Wt. 309.02 Projects Conditionally Authorized By Rule.

(l) Projects solely for the *physical/mechanical* removal of exotic aquatic weeds (EAW), subject to the following:

This suggestion is for clarification purposes and distinguishes alternative control methods other than control by herbicides.

Thank you for this opportunity to comment. If you have any comments or questions, please do not hesitate to contact Carol Henderson, Environmental Review Coordinator at carol.henderson@wildlife.nh.gov. Thank you.

Sincerely,

Glenn Normandeau Executive Director

Supplemental Fish Data, Jefferson Bridge109/061. Project # 43078

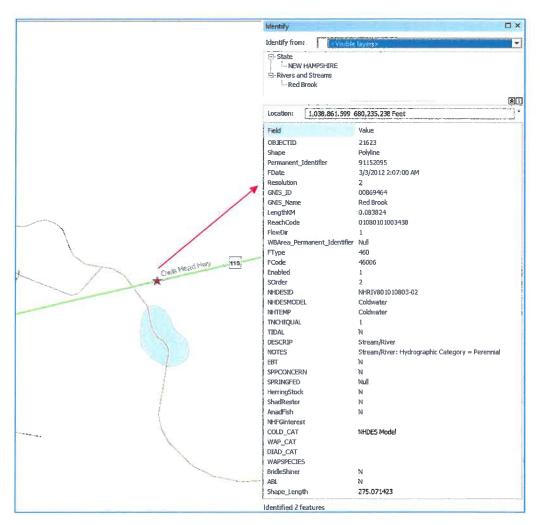
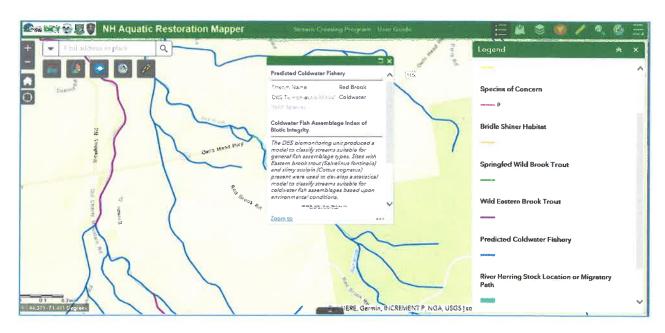


Figure 1: WAP 2020_Aquatic GIS data for Red Brook.



<u>Figure 2</u>: NH Aquatic Restoration Mapper website (https://www.arcgis.com/apps/webappviewer/index.html?id=21173c9556be4c52bc20ea706e1 c9f5a, Accessed November 24, 2020)

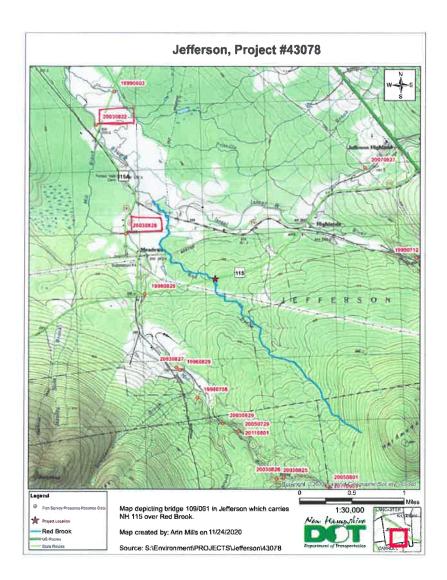


Figure 3: NH Fish & Game Fish Survey Data.

https://nhfg.maps.arcgis.com/apps/MapJournal/index.html?appid=d6549e90155b441fa0e29bdc44eebc2b, accessed November 24, 2020. GIS Feature Service shown using ArcMap.

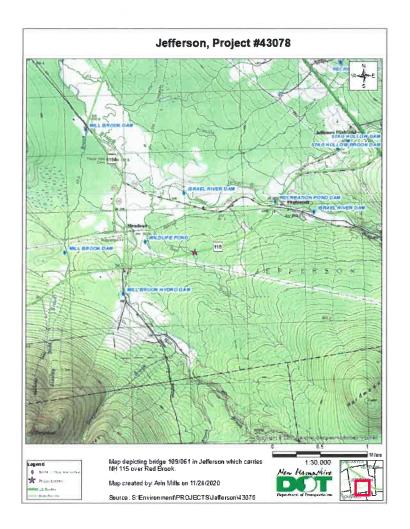
2003 Fish Survey Data, 20030828: Blacknose dace, Creek chub, Eastern Brook trout*, Longnose dace, longnose sucker, slimy sculpin*

2003 Fish Survey Data, 20030822: Blacknose dace, Creek chub, Common shiner, Eastern brook trout*, Longnose dace, <u>Rainbow trout</u>, Slimy sculpin*, Tesselated darter

Note: No fish survey data collected in Red Brook.

*: DES Predicted Coldwater Fish Indicator Species

X: Introduced species



<u>Figure 4</u>: Dams surrounding Red Brook. GRANIT GIS Data (https://nhgeodata.unh.edu/nhgeodata/rest/services/). No dams identified in Red Brook.

--> No NH Stream Crossing Data collected for crossing (http://nhsades.maps.arcgis.com/apps/webappviewer/index.html?id=72dd57d3274e4d64abb5 136a0a678db7, accessed November 24, 2020)



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



In Reply Refer To: June 29, 2020

Consultation Code: 05E1NE00-2020-SLI-3083

Event Code: 05E1NE00-2020-E-09400

Project Name: Jefferson Bridge Maintenance, 43078

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 (603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2020-SLI-3083

Event Code: 05E1NE00-2020-E-09400

Project Name: Jefferson Bridge Maintenance, 43078

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: Work will include installation of concrete invert and headwall to extend

the life of the structure.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.365983553746005N71.45778275389887W



Counties: Coos, NH

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME

Canada Lynx *Lynx canadensis*

Threatened

Population: Wherever Found in Contiguous U.S.

There is final critical habitat for this species. Your location is outside the critical habitat.

Species profile: https://ecos.fws.gov/ecp/species/3652

Northern Long-eared Bat Myotis septentrionalis

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



IPaC Record Locator: 139-22343048 June 29, 2020

Subject: Consistency letter for the 'Jefferson Bridge Maintenance, 43078' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR

§17.40(o).

Dear Arin Mills:

The U.S. Fish and Wildlife Service (Service) received on June 29, 2020 your effects determination for the 'Jefferson Bridge Maintenance, 43078' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take" of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

Canada Lynx, Lynx canadensis (Threatened)

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

[1] Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Jefferson Bridge Maintenance, 43078

2. Description

The following description was provided for the project 'Jefferson Bridge Maintenance, 43078':

Work will include installation of concrete invert and headwall to extend the life of the structure.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.365983553746005N71.45778275389887W



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

- Is the action authorized, funded, or being carried out by a Federal agency?

 No
- 2. Will your activity purposefully **Take** northern long-eared bats? *No*
- 3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases — the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

6. Will the action involve Tree Removal?

Yes

- 7. Will the action only remove hazardous trees for the protection of human life or property? *No*
- 8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

- 1. Estimated total acres of forest conversion:
- 0.2
- 2. If known, estimated acres of forest conversion from April 1 to October 31
- 0.2
- 3. If known, estimated acres of forest conversion from June 1 to July 31
- 0.2

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

- 4. Estimated total acres of timber harvest
- 0
- 5. If known, estimated acres of timber harvest from April 1 to October 31
- 0
- 6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

- 7. Estimated total acres of prescribed fire
- 0
- 8. If known, estimated acres of prescribed fire from April 1 to October 31
- 0
- 9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION BUREAU OF ENVIRONMENT

NOTE TO FILE

Date:

November 1, 2020

From:

Arin Mills

Environmental Manager Bureau of Environment

Project:

Jefferson 43078

RE: Canada Lynx Project Evaluation

The subject project is located on NH 115, a State maintained road, within the town of Jefferson. Work will include removal of excess material both upstream and downstream of the crossing, replacement of the Mortar Rubble Masonry (MRM) headwalls with reinforced concrete, installation of 6" invert within culvert and install a low-flow weir at the outlet. Permanent impacts for installation of fish weir, installation of cut off walls at inlet and outlet and dredging of material to restore hydraulic capacity.

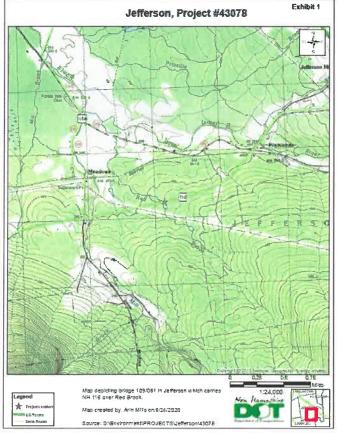
A species list was obtained from the US Fish & Wildlife Service (Consultation Code 05E1NE00-2020-E-3083) on June 29, 2020 using the online Information for Planning and Consultation (IPaC) project review website. Based on the project location both the Northern Long-eared bat and Canada lynx were listed as having potential to be in the project area. The IPaC site was further used to determine the project is not prohibited under the Endangered Species Act (ESA) Section 4(d) rule for impacts to the Northern Long-eared bat (IPaC Record Locator 139-22343048). To date no additional communication from the USFWS has been received.

A review of species information for the Canada lynx on the USFWS website, including the species Fact Sheet, found habitat for the species includes landscapes with high snowshoe hare densities, associated with boreal spruce-fir forest. Based on a field review no suitable habitat occurs within the project area for the species or its primary food source. The project area is cleared and managed right-of-way associated with NH 115. It is determined the project will have no effect on the Canada lynx. A 'No Species Present' letter is attached and no further coordination with the USFWS is required.

Project__Jefferson 43078 Bridge Maintenance project_ Proposed District Projects – NHDOT Cultural Resources Review

For the purpose of compliance with regulations of the National Historic Preservation Act, the Advisory Council on Historic Preservation's *Procedures* for the Protection of Historic Properties (36 CFR 800), the US Army Corps of Engineers' Appendix C, and/or state regulation RSA 227-C:9, Directive for Cooperation in the Protection of Historic Resources, the NHDOT Cultural Resources Program has reviewed the proposed project for potential impacts to historic properties.

Proposed project: A bridge maintenance project for bridge 109/061 which carries NH 115 (Owl Head Hwy) over Red Brook in Jefferson. The proposed project will include the installation of a 6" concrete invert, remove excess deposited material upstream and downstream of crossing (reuse onsite), replace the existing Mortar Rubble Masonry (MRM) headwalls with reinforced concrete and install a low-flow weir at outlet. The bridge was constructed about 1983 under project # S-3256-A for construction of NH 115 (alternate Franconia Notch). The bridge was completed in 1984.





JEFFERSON, Project #43078



Photo 3: Looking North at bridge inlet (downstream)

JEFFERSON, Project #43078



Photo 5: Looking South (upstream) at bridge outlet

Above Ground Review	
Known/approximate age of structure:	
1984 bridge (109/061) which carries NH 115 over Red Brook,	
structural plate pipe arch, 11'5" X 7'3"	
The 1985 As-built plans (S 3256-A, pages 29-30, 31) do not sho	ow any nearby built cultural resources.
☑ No Potential to Cause Effect/No Concerns	
The bridge is less than 50 years old and is not eligible for the Natio	onal Register.
In addition, proposed activities comply with the Section 106 Progr	ammatic Agreement, Appendix B.
☐ Concerns:	
Below Ground Review	
Recorded Archaeological site: ☐Yes ☒No	
Nearest Recorded Archaeological Site Name & Number: ☐ □ Pre-Contact □ Post-Contact	27-CO-0157 Meadows Road Site
Distance from Project Area:	
5382 ft northwest of project area	
No Potential to Cause Effect/No Concerns Arin Mills compiled overlays of the bridge location on USGS maps which depict any structures in the project area. NH 115 was relocated the Mills also visited the site (7/2/2020) and did not observe any structures, in or near the project area that pertain to your program	nted in 1983 to the current alignment. features, such as stone wall or historic
Due to the setting, lack of structures during the post contact period construction dating to 1983/1984, as well as the proposed activition primarily confined to already disturbed soils, there are no concern	es which for the most part will be be
☐ Concerns:	
Recommendation: The project activities align with Section 106 Proposential to Cause Effects (Appendix B):	\
 Non-historic bridge and culvert maintenance, renovation, or to additional right-of-way or easement, including: 	ital replacement, <u>that may require minor</u>
a. replacement or maintenance of non-historic bridges	
Choose an item.	
Stream and/or slope stabilization and restoration activities (inclinatural waterway, or any non-invasive action to restore natural	-
Reviewed by:	
	7/14/2020
Spice Charles	., = ., = 3=3
NHDOT Cultural Resources Staff	Date:

Section 106 Programmatic Agreement - Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Date Reviewed:
(Desktop or Field Review Date)7/14/2020☑This Project uses only State funding; however
project activities listed below comply with the PA.Project Name:Jefferson Bridge Maintenance

State Number: 43078 FHWA Number: N/A

Environmental Contact: Arin Mills DOT

Email Address: Arin.mills@dot.nh.gov Project Manager: Tim Boodey

Project Description: Bridge maintenance activities to bridge 109/061 which carries NH 115 over Red Brook. The

proposed project will include the installation of a 6" concrete invert, remove excess deposited material upstream and downstream of crossing (reuse onsite), replace the existing Mortar Rubble Masonry (MRM) headwalls with reinforced concrete and install a

low-flow weir at outlet.

Please select the applicable activity/activities:

High	way and Roadway Improvements				
	1. Modernization and general highway maintenance that may require additional highway right-of-way or				
	easement, including:				
	Choose an item.				
	Choose an item.				
	2. Installation of rumble strips or rumble stripes				
	3. Installation or replacement of pole-mounted signs				
	4. Guardrail replacement, provided any extension does not connect to a bridge older than 50 years old (unless it				
	does already), and there is no change in access associated with the extension				
Bridg	ge and Culvert Improvements				
	5. Culvert replacement (excluding stone box culverts), when the culvert is less than 60" in diameter and				
	excavation for replacement is limited to previously disturbed areas				
	6. Bridge deck preservation and replacement, as long as no character defining features are impacted				
\boxtimes	7. Non-historic bridge and culvert maintenance, renovation, or total replacement, that may require minor				
	additional right-of-way or easement, including:				
	a. replacement or maintenance of non-historic bridges				
	Choose an item.				
	8. Historic bridge maintenance activities within the limits of existing right-of-way, including:				
	Choose an item.				
	Choose an item.				
\boxtimes	9. Stream and/or slope stabilization and restoration activities (including removal of debris or sediment				
	obstructing the natural waterway, or any non-invasive action to restore natural conditions)				
Bicyc	le and Pedestrian Improvements				
	10. Construction of pedestrian walkways, sidewalks, sidewalk tip-downs, small passenger shelters, and				
	alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons				
	11. Installation of bicycle racks				
	12. Recreational trail construction				
	13. Recreational trail maintenance when done on existing alignment				
	14. Construction of bicycle lanes and shared use paths and facilities within the existing right-of-way				
Railro	Railroad Improvements				
	15. Modernization, maintenance, and safety improvements of railroad facilities within the existing railroad or				
	highway right-of-way, provided no historic railroad features are impacted, including, but not limited to:				

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

	Choose an item.							
	Choose an item.							
	16. In-kind replacement of modern railroad features (i.e. those features that are less than 50 years old)							
	17. Modernization/modification of railroad/roadway crossings provided that all work is undertaken within the							
	limits of the roadway structure (edge of roadway fill to edge of roadway fill) and no associated character							
	defining features are impacted							
Other Improvements Control of the Co								
	18. Installation of Intelligent Transportation Systems							
	19. Acquisition or renewal of scenic, conservation, habitat, or other land preservation easements where no							
	construction will occur							
		placement of existing storm						
	21. Maintenance of stor	mwater treatment features	and rel	ated infrastructure				
		is applicable under Append						
					, proposed activities comply			
		atic Agreement, Appendix B.			• .			
		and culvert construction dat			•			
for the	e most part will be primari	ly confined to already distur	bed so	ls, there are no concerr	is.			
Please	submit this Certification F	orm along with the Transpo	rtation	RPR, including photogra	aphs, USGS maps, design			
plans	and as-built plans, if availd	able, for review. Note: The R	PR can	be waived for in-house	projects, please consult			
Cultur	al Resources Program Staf	r f	plans and as-built plans, if available, for review. Note: The RPR can be waived for in-house projects, please consult					
Cultural Resources Program Stajj.								
		<i>J</i> ·						
	lination Efforts:	<i>j</i> .						
Coord	lination Efforts:		NHDH	IR R&C # assigned?	Click here to enter text			
Coord Has ar	lination Efforts: n RPR been submitted to	Not Applicable	NHDH	IR R&C # assigned?	Click here to enter text.			
Coord Has ar	lination Efforts:		NHDF	IR R&C # assigned?	Click here to enter text.			
Coord Has ar NHDC	lination Efforts: n RPR been submitted to oT for this project?	Not Applicable						
Coord Has an NHDC	lination Efforts: n RPR been submitted to	Not Applicable Initial contact letter sent to	town,	including the Jefferson				
Coord Has an NHDC Please effort	lination Efforts: n RPR been submitted to or for this project? e identify public outreach	Not Applicable	town,	including the Jefferson				
Coord Has an NHDC Please effort	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of	Not Applicable Initial contact letter sent to	town,	including the Jefferson				
Coord Has an NHDC Please effort outrea	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of ach and date:	Not Applicable Initial contact letter sent to	o town, ommen	including the Jefferson				
Coord Has an NHDC Please effort outrea	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of ach and date:	Not Applicable Initial contact letter sent to 7/8/2020 and to date no co	o town, ommen	including the Jefferson	Historical Society, on			
Coord Has ar NHDC Please effort outrea Findin	lination Efforts: n RPR been submitted to off for this project? e identify public outreach contacts; method of ach and date: g: (To be filled out by NHD No Potential to Cause Ef	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town,	including the Jefferson ts have been received.	Historical Society, on Affected			
Coord Has ar NHDC Please effort outrea Findin This fi	lination Efforts: n RPR been submitted to DT for this project? e identify public outreach contacts; method of ach and date: ng: (To be filled out by NHD No Potential to Cause Ef	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	o town, ommen) ct. No f	including the Jefferson ts have been received. No Historic Properties urther coordination is n	Historical Society, on Affected ecessary.			
Coord Has ar NHDC Please effort outrea Findin	lination Efforts: n RPR been submitted to DT for this project? e identify public outreach contacts; method of ach and date: No Potential to Cause Ef nding serves as the Section This project does not cor	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town, commen ct. No few will	including the Jefferson ts have been received. No Historic Properties urther coordination is noticed.	Historical Society, on S Affected ecessary. tion VII of the Programmatic			
Coord Has ar NHDC Please effort outrea Findin This fi	lination Efforts: n RPR been submitted to DT for this project? e identify public outreach contacts; method of ach and date: No Potential to Cause Ef nding serves as the Section This project does not cor	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town, commen ct. No few will	including the Jefferson ts have been received. No Historic Properties urther coordination is noticed.	Historical Society, on S Affected ecessary. tion VII of the Programmatic			
Coord Has ar NHDC Please effort outrea Findin This fi	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of ach and date: g: (To be filled out by NHD No Potential to Cause Effording serves as the Section This project does not con Agreement. Please contacts	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town, commen ct. No few will	including the Jefferson ts have been received. No Historic Properties urther coordination is noticed.	Historical Society, on S Affected ecessary. tion VII of the Programmatic			
Coord Has ar NHDC Please effort outrea Findin This fi	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of ach and date: No Potential to Cause Effording serves as the Section This project does not con Agreement. Please contact NHDOT comments:	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town, commen ct. No few will	including the Jefferson ts have been received. No Historic Properties urther coordination is noticed.	Historical Society, on S Affected ecessary. tion VII of the Programmatic			
Coord Has ar NHDC Please effort outrea Findin This fi	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of ach and date: No Potential to Cause Effording serves as the Section This project does not con Agreement. Please contact NHDOT comments:	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town, commen ct. No few will	including the Jefferson ts have been received. No Historic Properties urther coordination is no continue under Stipulation determine next ste	Historical Society, on S Affected ecessary. tion VII of the Programmatic			
Coord Has ar NHDC Please effort outrea Findin This fi	lination Efforts: n RPR been submitted to of for this project? e identify public outreach contacts; method of ach and date: g: (To be filled out by NHD No Potential to Cause Effording serves as the Section This project does not con Agreement. Please contacts	Not Applicable Initial contact letter sent to 7/8/2020 and to date no contact letter sent letter	town, commen ct. No few will	including the Jefferson ts have been received. No Historic Properties urther coordination is no continue under Stipulation determine next ste	Historical Society, on S Affected ecessary. tion VII of the Programmatic			
Coord	lination Efforts:		NHDH	IR R&C # assigned?	Click here to enter text.			

Coordination of the Section 106 process should begin as early as possible in the planning phase of the project (undertaking) so as not to cause a delay.

Section 106 Programmatic Agreement - Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Project sponsors should not predetermine a Section 106 finding under the assumption a project is limited to the activities listed in Appendix B until this form is signed by the NHDOT Bureau of Environment Cultural Resources Program staff.

Every project shall be coordinated with, and reviewed by the NHDOT-BOE Cultural Resources Program in accordance with the Programmatic Agreement Among the Federal Highway Administration, the New Hampshire State Historic Preservation Office, the Army Corps of Engineers, New England District, the Advisory Council on Historic Preservation, and the New Hampshire Department of Transportation Regarding the Federal Aid Highway Program in New Hampshire. In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

NHDOT and the State Historic Preservation Office may use provisions of the Programmatic Agreement to address the applicable requirements of NH RSA 227-C:9 in the location, identification, evaluation and management of historic resources, for projects funded by State funds.

If any portion of the project is not entirely limited to any one or a combination of the activities specified in Appendix B (with, or without the inclusion of any activities listed in Appendix A), please continue discussions with NHDOT Cultural Resources staff.

This <u>No Potential to Cause Effect or No Historic Properties Affected</u> project determination is your Section 106 finding, as defined in the Programmatic Agreement.

Should project plans change, please inform the NHDOT Cultural Resources staff in accordance with Stipulation VII of the Programmatic Agreement.

Jefferson 109/061, DOT Project #43078

November 2, 2020

A letter from the NH Department of Transportation was sent to the Town of Jefferson, to include the Conservation Commission, on July 8, 2020. A letter was received from the Conservation Commission, dated August 12, 2020, that responded to the initial request for information from the Department. A review of the information provided, attached, did not determine any concerns which required further communications with the Commission beyond acknowledgement of receipt.

Arin Mills
Bureau of Environment
NHDOT

NH 115 at Red Brook in Jefferson, NH

Comments from David Govatski, Chairman of the Jefferson Conservation Commission

To: Arin Mills, Environmental Manager

Arin:

Thank you for the opportunity to comment on the proposed work at Red Brook and apologies for the delay in responding. The following are answers to your 11 questions in the letter dated 8 July 2020.

- 1. Priority list for mitigation efforts in Jefferson:
 - a. Problem Culverts: Slide Brook and NH 115 have long been identified as a problem. It is likely to big a project to undertake at this time but we would like you to be aware of this culvert and stream passage issue.
 - b. Dam on Appleby brook just upstream of NH 115. This is also in the immediate vicinity of Red Brook. This is a private dam built for hydro power that was never completed and is a barrier to fish passage. It is about a hundred yards upstream from NH 115.
 - c. Land Protection: Acquiring a 10-acre wetland inholding in the Pondicherry National Wildlife Refuge for addition to the Refuge. I can provide more details but this is a priority acquisition for the Refuge.
- 2. Existing Community or Regional plans: The Pondicherry NWR has a Comprehensive Conservation Plan and EIS. The Jefferson Conservation Commission has a Natural Resource Inventory. Neither have a bearing on this project.
- 3. Significant Natural Resources in this immediate area: There is nothing unusual in this specific area. It has been known for bobcat sightings and formerly for moose sightings.
- 4. Significant Cultural Resources: No known cultural resources although the stream side has not been surveyed.
- 5. Conservation Lands in the Area: The 6,440 acre Pondicherry NWR is within a mile of the project site and the WMNF is less than a mile from the project area. There is also the Agnew State Forest about a mile away. LWCF funds have been used on the two federal lands.
- 6. Significant Water Resources in this area: No.
- 7. Water Quality Concerns in this project area: No, except for the introduction of exotic invasive plants such as phragmites, knotweed, and purple loosestrife.
- 8. HAZMAT sites: No. This section of Route 115 is relatively new, from the 1990s and no one lived here prior to the road being built through here.
- 9. Other environmental concerns: No.
- 10. Will the proposal have a significant effect upon the surrounding area: No.
- 11. Non-native plant species: We are aware of a couple of populations of phragmites with a mile of the project site on NH 115 that we would like to have remediated as part of this project. We have some Knotweed issues in the road corridor further west on NH 115 in

Jefferson that have been worked on by the NH DOT and USFWS. We hope this cooperative effort will continue.

Please let me know if I can be of additional assistance.

David Govatski, Chairman Jefferson Conservation Commission 515 Bailey Road Jefferson, NH 03583 603-586-7776 July 8, 2020

David Govatski Jefferson Conservation Commission 698 Presidential Highway Jefferson, NH 03583

Re: Project, #43078

Dear Mr. Govatski:

The NH Department of Transportation (DOT) is planning the subject project, which will entail bridge maintenance activities on bridge 109/061 which carries NH 115 over Red Brook. The proposed project will include the installation of a 6" concrete invert, remove excess deposited material upstream and downstream of crossing (reuse onsite), replace the existing Mortar Rubble Masonry (MRM) headwalls with reinforced concrete and install a low-flow weir at outlet.

Some transportation projects require mitigation for possible wetland/stream impacts. The natural resources in this project area have not yet been identified and investigations are forthcoming. Preliminary engineering studies have begun and the Department will attempt to avoid, and minimize impacts through design before determining if there will be any stream or wetland impacts that may require mitigation. As a proactive measure the Department would like to request a list of the Town's preferred/priority mitigation efforts that the Department may evaluate and consider undertaking if it is determined that the project does in fact require mitigation. Please let us know if your Town has identified such priorities. In the absence of any Town priorities to evaluate the Department will pursue permittee responsible mitigation through the Stream Passage Improvement Program (SPIP). If it's determined that no viable options exist through the SPIP, the Department will pursue a payment into the Aquatic Resource Mitigation Fund (ARM Fund), at which time those funds will become competitively available through the ARM fund grant process.

Engineering studies have been initiated to refine the scope and limits of work necessary for this project. The Department's Bureau of Environment is in the process of evaluating the potential environmental impacts associated with the project. To assist in this evaluation, I am asking that you provide comments relative to the project's potential impacts on environmental, social, economic or cultural resources, by responding to the following questions.

- 1. Does the Town have a list of priority mitigation efforts (Top 10 Priority List) that the DOT may evaluate and consider undertaking if it is determined that the project does in fact require mitigation? If so, please provide the list. (e.g. problematic culvert/bridge crossings, land protection, habitat restoration, etc.)
- 2. Are there any existing or proposed community or regional plans that might have a bearing on this project?
- 3. Are there any natural resources of significance in the vicinity of the project? (e.g. prime wetlands, floodplains, rare species, etc.) Are there any known wildlife corridors or habitat strongholds in the vicinity of the project?
- 4. Are there any cultural resources of significance in the vicinity of the project? (e.g. stonewalls, cemeteries, historical or archeological resources, etc.) Please note that Section 106 of the National Historic Preservation Act offers those that possess a direct interest in historical resources, including town officials, Historical

Societies, and Historical Commissions, an opportunity to become more involved in an advisory role during project development as "Consulting Parties." Those interested should contact the Department.

- 5. Are there any public parks, recreation areas, conservation lands, or wildlife/waterfowl refuges in the vicinity of the project? Have Land & Water Conservation Funds been used in the project area?
- 6. Are there any locally or regionally significant water resources or related protection areas in the project vicinity? (e.g. public water supplies, wellhead protection areas, aquifer protection districts, etc.)
- 7. Are there any water quality concerns that should be addressed during the development of this project? (e.g. stormwater management, NPDES Phase II, impaired waters, etc.)
- 8. Are you aware of any existing or potential hazardous materials or contaminants in the vicinity of the project? Are there asbestos landfills or asbestos containing utility pipes located within the project limits?
- 9. Do you have any environmental concerns not previously noted (e.g. noise impacts, farmland conversion, etc.) that you feel the Department should be aware of for this project?
- 10. Will the proposed project have a significant effect upon the surrounding area? If so, please explain.
- 11. Are you aware of any existing roadside populations of non-native invasive plant species (such as Japanese knotweed, phragmites, or purple loosestrife) in the project area?

This letter has been sent to the following departments, boards, and/or commissions:

- Board of Selectmen
- Planning Board
- Fire Department

- Conservation Commission
- Historical Society

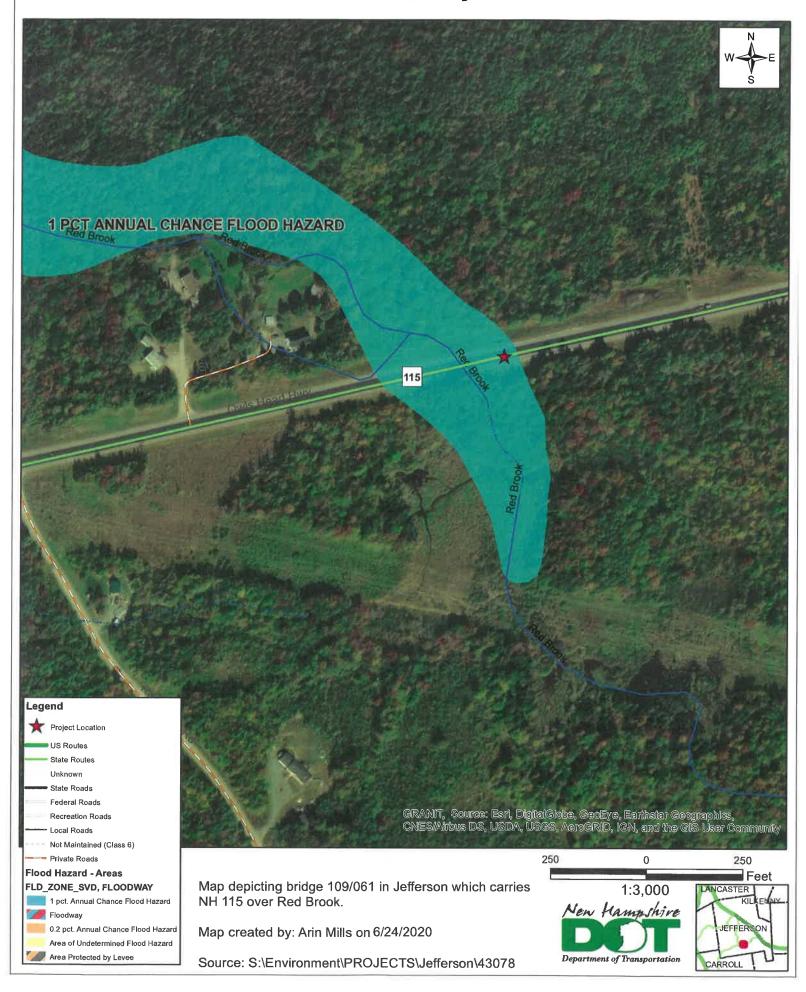
The tentative construction date for this project is Fall 2020. Please feel free to contact me if you have any questions or require further information regarding the above referenced project. Thank you for your assistance.

Sincerely,

Arin Mills
Environmental Manager
NH Department of Transportation
Bureau of Environment
271-3226
Arin.mills@dot.nh.gov

AJM: ajm Encl.

Jefferson, Project #43078



Mills, Arin

From:

Rousseau, James L CIV < James.L.Rousseau2@uscg.mil>

Sent:

Tuesday, July 7, 2020 12:42 PM

To:

Mills, Arin

Subject:

RE: NHDOT Bridge Maintenance USCG Review

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Arin,

This waterway location is in the First Coast Guard District Area of Operation. We reviewed the information that you sent concerning the crossing over Red Brook in Jefferson, NH, flowing into Israel River. This project does not cross any navigable tidal or navigable non-tidal waterways under Coast Guard Bridge jurisdiction. Therefore a Coast Guard Approval is not needed

The fact that a Coast Guard approval is not required does not relieve you of the responsibility for compliance with the requirements of any other Federal, State, or local agency who may have jurisdiction over any aspect of the project.

Warm Regards,

Jim

Jim Rousseau Senior Bridge Management Specialist United States Coast Guard District 1 408 Atlantic Ave Boston, Ma. 02110-3350 617-223-8619

From: Mills, Arin <Arin.Mills@dot.nh.gov> Sent: Tuesday, July 7, 2020 11:10 AM

To: Rousseau, James L CIV < James.L.Rousseau2@uscg.mil>

Subject: [Non-DoD Source] NHDOT Bridge Maintenance USCG Review

Hello Jim,

The NHDOT intends to conduct bridge maintenance activities on bridge 109/061 which carries NH 115 over Red Brook in Jefferson (#43078). The work plans to begin in fall of 2020 and will continue into the winter. The proposed project will include the installation of a 6" concrete invert, remove excess deposited material upstream and downstream of crossing (reuse onsite), replace the existing Mortar Rubble Masonry (MRM) headwalls with reinforced concrete and install a low-flow weir at outlet.

I have attached a location map as well as a GIS shapefile for the project location. Feel free to reach out with any questions.

Arin Mills
Environmental Manager, Operations Management
NH Department of Transportation



Appendix B

Regional General Permits (GPs) Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to www.nae.usace.army.mil/regulatory, "Forms/Publications" and then "Application and Plan Guideline Checklist." Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

- Corps application form (ENG Form 4345) as appropriate.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible black and white (no color) plans no larger than 11"x17" with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
- Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. Don't use local datum. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
- Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
- Show project limits with existing and proposed conditions.
- Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
- Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the ordinary high water in inland waters and below the high tide line in coastal waters.
- Delineation of all waterways and wetlands on the project site,:
- Use Federal delineation methods and include Corps wetland delineation data sheets. See GC 2 and www.nero.noaa.gov/hcd for eelgrass survey guidance.
- GP 3, Moorings, contains eelgrass survey requirements for the placement of moorings.
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.

Appendix B August 2017

New Hampshire General Permits (GPs) Appendix B - Corps Secondary Impacts Checklist (for inland wetland/waterway fill projects in New Hampshire)

- 1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
- 2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
- 3. See GC 5, regarding single and complete projects.
- 4. Contact the Corps at (978) 318-8832 with any questions.

1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See		No
1.1 Will ally work occur within I lime apstream in the watershed of an imparted water. See		
http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm		X
to determine if there is an impaired water in the vicinity of your work area.*		
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	X	
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information		
from the NH Department of Resources and Economic Development Natural Heritage Bureau		
(NHB) DataCheck Tool for information about resources located on the property at		Х
https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New		
Hampshire also contains specific information about the natural communities found in NH.		
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology,		
sediment transport & wildlife passage?	X	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent		
to streams where vegetation is strongly influenced by the presence of water. They are often thin		34
lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream		X
banks. They are also called vegetated buffer zones.)		
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?		
2.7 What is the area of the proposed fill in wetlands?		
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?		
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species,		
exemplary natural communities, Federal and State threatened and endangered species and habitat,		
in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS		Х
IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb datacheck/		/
USFWS IPAC website: https://ecos.fws.gov/ipac/location/index		

Appendix B August 2017

3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or		
"Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green,		
respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological		
Condition.") Map information can be found at:		
• PDF: www.wildlife.state.nh.us/Wildlife/Wildlife Plan/highest ranking habitat.htm.	X	
Data Mapper: www.granit.unh.edu.	^	
GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland,		
wetland/waterway) on the entire project site and/or on an adjoining property(s)?		Х
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or		
industrial development?		X
3.5 Are stream crossings designed in accordance with the GC 21?	X	
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?	Х	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of		37
flood storage?		X
5. Historic/Archaeological Resources	SHOOL	
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR)		
Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division	x	
of Historical Resources as required on Page 11 GC 8(d) of the GP document**	^	

^{*}Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.

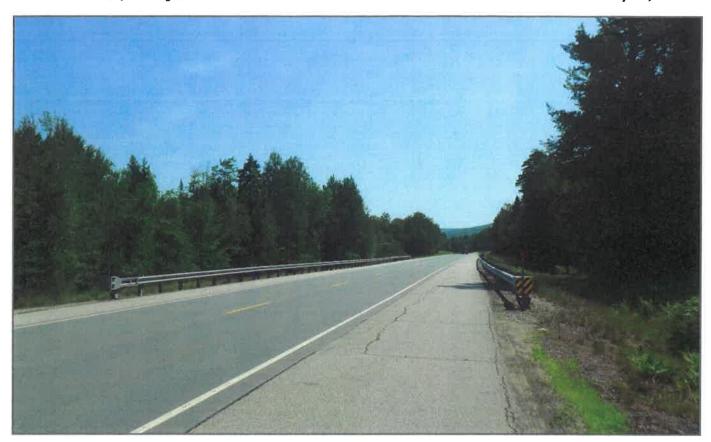


Photo 1: Looking West down NH 115



Photo 2: Looking East down NH 115

JEFFERSON, Project #43078



Photo 3: Looking North at bridge inlet (downstream)



Photo 4: Looking South (upstream) from NH 115

JEFFERSON, Project #43078



Photo 5: Looking South (upstream) at bridge outlet



Photo 6: Looking North (downstream) from NH 115

CONSTRUCTION SEQUENCE

Work is anticipated to take approximately 4 months to complete and is currently proposed to be done during the fall and winter. Work will be phased: the excess material will be removed from the inlet and outlet, the headers rehabilitated, then the reinforced concrete invert will be placed prior to the installation of the fish weir.

- 1. Erosion control barrier will be installed at the limits of work prior to earth disturbing activities
- 2. A clean water bypass pipe will be installed to maintain flows through the crossing during construction as well as sandbag cofferdams to divert water into the bypass pipe. Water within the work areas behind the cofferdam will be pumped to dewatering basins to allow for sediment to settle out prior to the water being introduced back into the system. Cofferdams and the clean water bypass pipe will be in place for the majority of the time it takes to complete the work. Work is proposed to be done during low flow; therefore, it is anticipated that the bypass pipe will only pass low flows.
- 3. Reinforced concrete invert (6") will be installed in the culvert, cut off walls will be added to the inlet and outlet of the inverts.
- 4. Existing MRM headwalls and wings will be rehabilitated in the same footprint of the existing structures.
- 5. Excess material will be dredged and removed from both upstream of the inlet and downstream of the outlet in order to restore hydraulic capacity to the crossing. This will improve the connectivity of the crossing and locally reduce velocities where excess material is currently located.
- 6. Material removed will be stored on site to dewater behind siltation fence at least 20' upland of delineated wetlands. This material will be used on site and along the existing right of way on the slopes outside of wetlands jurisdiction. Material will be stabilized and vegetated.
- NHDOT personnel will contact NH Fish and Game SME's (John Magee) to locate and construct a
 fish weir device using natural materials.
- 8. Once in stream work is completed the water diversion structures and clean water bypass pipe will be removed. Erosion control barrier will remain in place until slopes are stabilized by vegetation.

Note:

- A. The Project will utilize BMP's from the Best Management Practices manual during all phases of construction.
- B. Dewatering System Details per Env-WT 903.03
 - (e) The following information about the dewatering system proposed to be used:
 - (1) Estimated maximum flow anticipated during construction;

During the proposed time of construction during which the bypass will be in place as the clean water bypass, we anticipate a maximum flow of 15 CFS based on the inlet conditions

S:\Global\B26-BridgeMaintenance\Wetlands\CY2018, CY2019, CY2020 Permits\Jefferson 109-061 43078\022 Construction Sequence Jefferson 109-061.docx

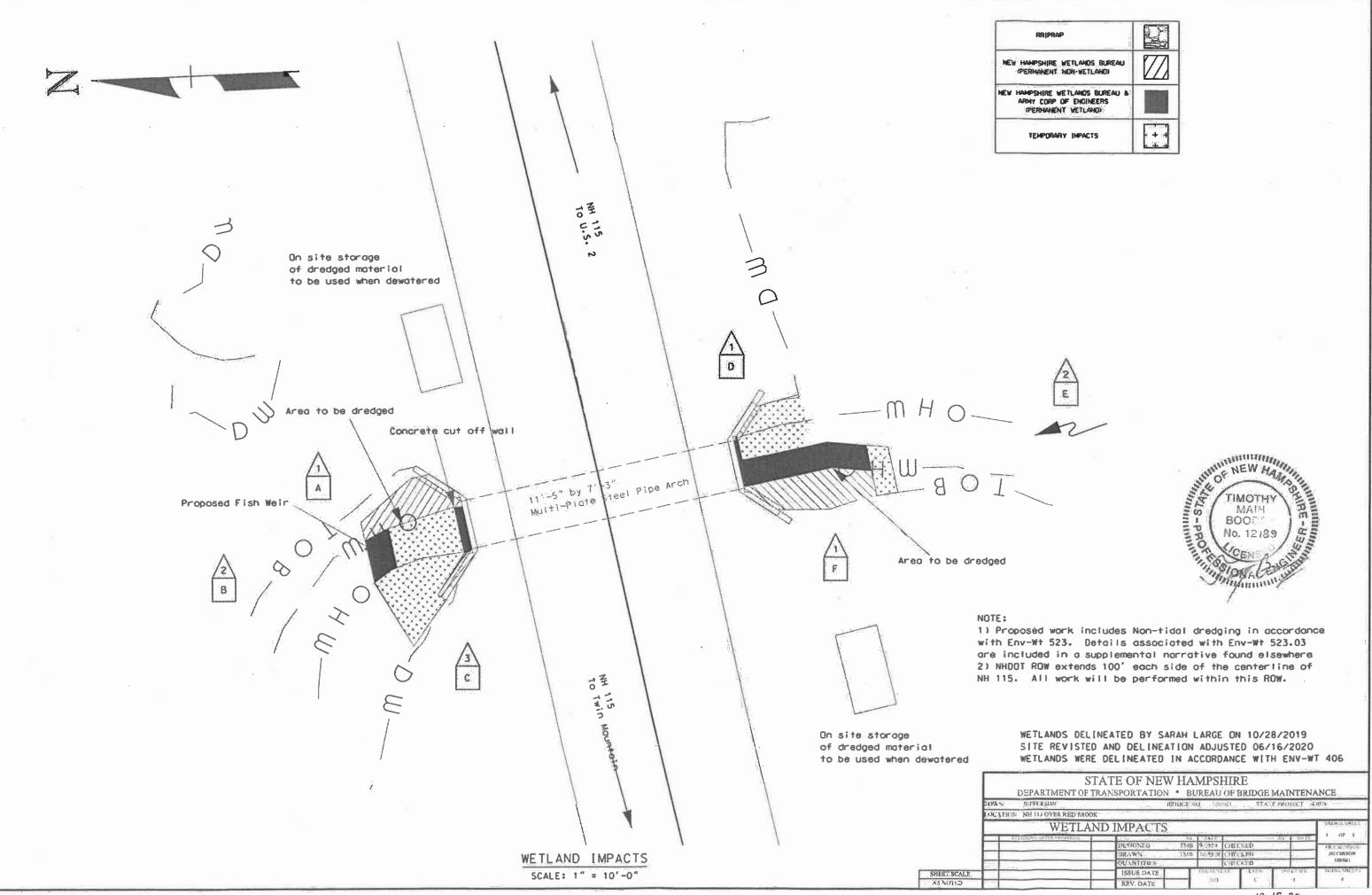
(2) The location, height, and width of the diversion dam;

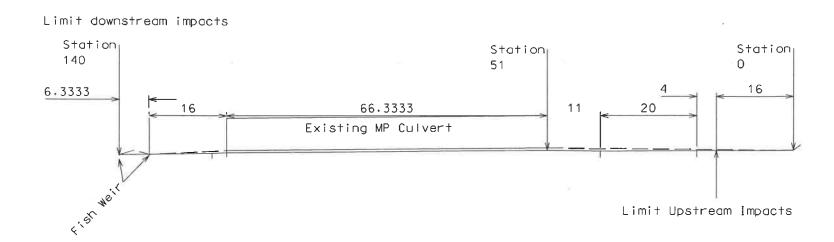
Sandbag cofferdams will be located as show on the plans. We anticipate a maximum height of 3' and maximum width of 4'.

(3) The location and capacity of each sump; and

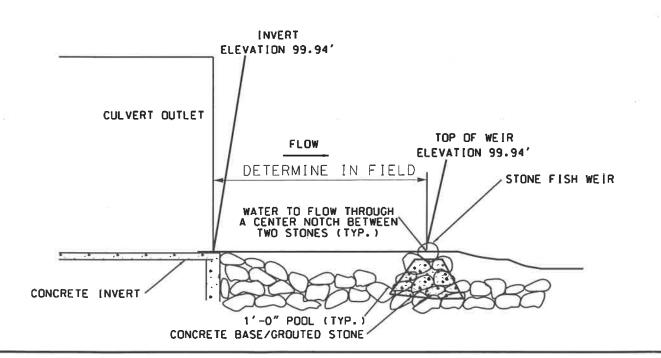
Potential sumps will be located just inside the work area between the headwalls and the sandbag cofferdams. They will be large enough to accommodate up to a 3" pump per sump discharging to the detention basins.

(4) Backwater prevention method; Sandbag cofferdams will be located both upstream and downstream of the proposed work to prevent backwater from entering the work area.





	Impact	Center		Outlet	Inlet			Impact	
	Limit	Weir		Invert	Invert			Limit	
Station	140	136'-2"	120	117	51	40	20	16	0
Exist.	99.03	99.22	99.42	99.44	100.00	99.81	99.94	100.00	100.02
Elevation	99.03	99.22	99.42	99.44	100.00	99.01	99.94	100.00	100.02
Proposed									
Elevation	99.03	99.94	99.82	99.94	100.5	100.38	100.2	100	100.02
Elevation									
Change,									
FT	0	0.72	0.4	0.5	0.5	0.57	0.26	0	0



			LINEAR STREAM IMPACTS FOR					AND IMPACT AREA I	- WEID				25
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	_	ERMANENT	PE					1ANENT	PEKIVI			WETLAND	WETLAND
	CHANNEL	BANK RIGHT	BANK LEFT		TEMPORARY			N.H.W.B.		N.H.\ (NON WI	LOCATION	CLASSIFICATION	NUMBER
	LF	LF	LF		LF	SF	LF	SF	LF	SF			
				1					23	155	Α	BANK	1
					16	155	8	80			В	R3UB12	2
					22	225	12	31			С	PEM/SS1E	3
				10	16	72			10	8	D	BANK	1
					6	29	31	192			E	R3UB12	2
					6	29			31	213	F	BANK	1
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WETLAND CLASSIFICATION CODES				TEMPORARY		N.H.W.B. & A.C.O.E. (WETLAND)				SUBTOTALS			
RIVERINE, UPPER PERENNIAL, UNCONSOLIDATED BOTTO COBBLE GRAVEL AND SAND		R3UB12	1 1	SF LF		LF	SF	LF	SF	ON	DESCRIPTION	CLASS	
			1 1	22	184	39	272			E	RIVERINE	R3UB12	
			BANK	1 [22	101			64	376		BANK	BANK
crub-Shrub Broad	Emergent, S	Palustrin	PEM/SS1E		22	225	12	31			e	Palustrine	PEM/SS1E

APPROXIMATE EXISTING CONTOURS PROPOSED CONTOURS NH 115 MOURISHE TO TWIN MOUNTOIN NH 115 TO U.S. 2 11.98 STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE MAINTENANCE TWO FOOT CONTOUR MAP PROPOSED ALTERATION OF TERRAIGN SCALE: 1" = 10'-0" DRAWN QUANTIT SHEET SCALE AS NOTED

